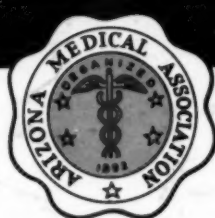
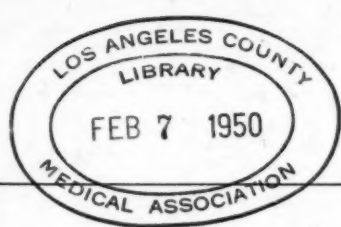




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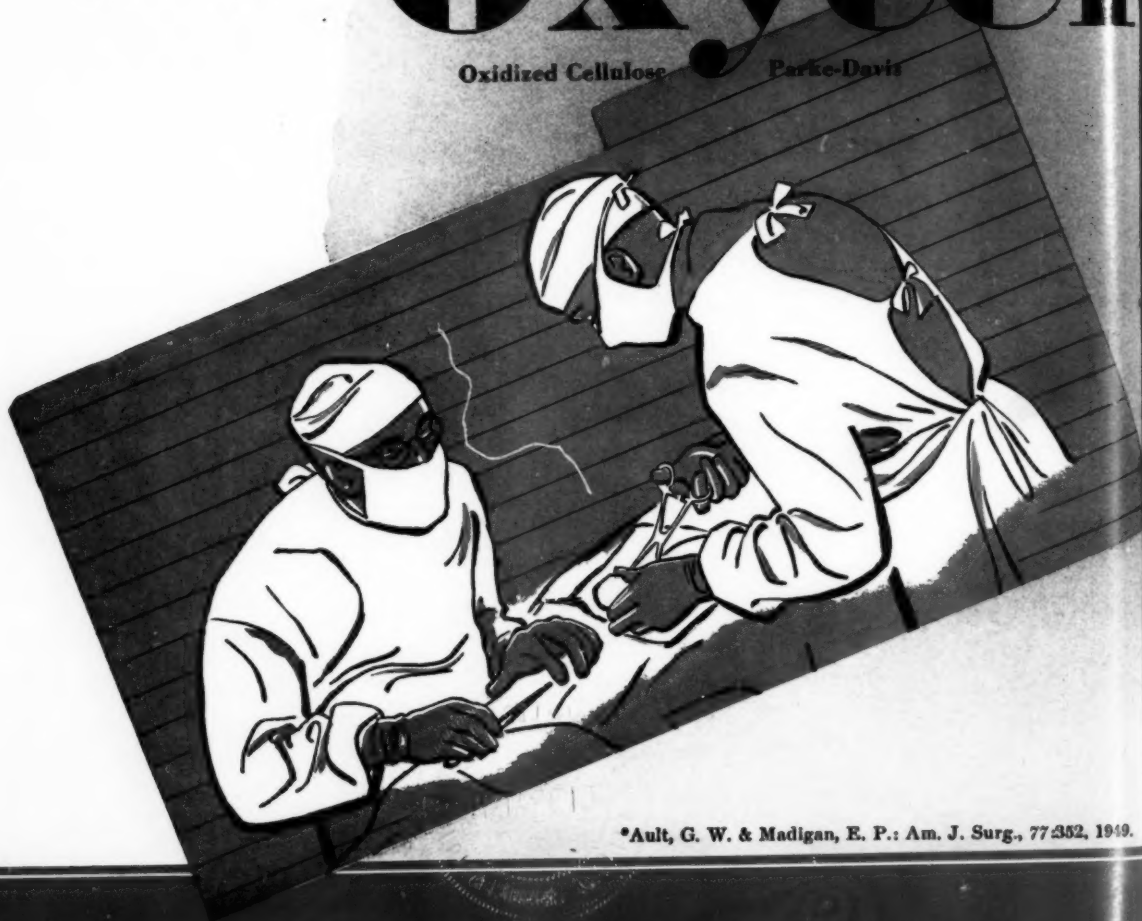
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BRUCELLOSIS

(Synonyms: Undulant Fever, Malta Fever, Mediterranean Fever, Texas Fever, Rio Grande Fever, Neapolitan Fever, Brucelliasis.)

A. G. BOWER, M. D.,
Pasadena, California

THIS disease is unique in its history in that its presence on the island of Malta first attracted attention and led to it being named "Malta Fever", though undoubtedly it had existed for many years previously along the shores of the Mediterranean. However, in 1913 the section on tropical medicine of the International Congress of Medicine at their London meeting recommended that the name be changed officially to undulant fever, a name first suggested by Hughes in 1896. Through usage, brucellosis is the appellation most commonly applied today.

It has only been during the past 30 years that we have come to recognize the increasing clinical and economic importance of this disease, though in the Mediterranean area the disease has probably existed for ages, and it has now become widely disseminated in this country.

Ten to twenty per cent of the population will react in some degree to skin testing with the various antigens used in the United States, depending upon the geographical location in which the tests are run. By no means are these positive skin tests to be interpreted as indicating the presence of active disease.

Brucella organisms are widely distributed in nature. They are also highly infectious from intimate contact, if one may judge from the number of laboratory workers accidentally infected from year to year while investigating the disease, and the large number of packing house employees coming down with it. Nevertheless, relatively few people, who are not handling infected animals, in the population at large have ever had

clinical evidences of the disease. This indicates puzzling gaps in our knowledge of the epidemiology and other factors directly relating to infection with brucellosis. In my opinion, many data published as established facts concerning brucellosis, will in the future prove to be untrue. A great portion of our knowledge of this disease is relative, not absolute, but actual knowledge is gradually increasing, and new facts are being established from time to time.

HISTORY

It is stated that an infectious fever occurring in Thasus in ancient times was so accurately described by Hippocrates that undulant fever is clearly delineated as the clinical picture. The modern history dates from 1861, when Marston described the illness in his own person, which he contracted two years earlier along the shores of the Mediterranean. Soon thereafter, Veale was diagnosing and reporting upon the signs and symptoms of a specific disease seen in people from Malta, Cypress and Gibraltar, and who returned to England because of it.

Bruce succeeded a few years later in isolating the causative organism from the spleen of a case. He fulfilled Koch's laws with this organism and in 1893 named it *Micrococcus melitensis*.

In classic monograph four years later, Hughes named the disease undulant fever.

In 1906, Zammitt, a member of the British Mediterranean Fever Commission, appointed two years earlier, reported that *M. melitensis* was present in the milk of the goats on Malta, that it survived for long periods outside of the body, and that it was excreted in human urine.

Read before the Third Annual Lectures in Medical Science, Lois Grunow Memorial Clinic, Phoenix, Arizona, February, 1949.

In 1897, Bang met the requirements of Koch's laws in cattle with an organism he had recovered from a cow suffering from contagious abortion. In 1914, Traum did the same thing in the contagious abortion in hogs. Later, Alice Evans in this country proved that *M. melitensis* and the *Bacillus abortus* of Bang were closely allied variants of the same organism. Meyer and Shaw confirmed this in 1920 and suggested the generic name *Brucella* for the entire group.

In 1924, Keefer reported the first case of brucellosis proven to be due to organisms other than *M. melitensis*. Alice Evans first identified the germ isolated from this patient as *B. abortus*, but Huddleson later established it to be *B. suis*. Investigators were on the lookout for such cases since Schrader and Cotton in 1911, and Smith and Fabian a year later, after recovering Bang's bacillus of contagious abortion from the udders of cows with no apparent inflammatory or other disease, had pointed out the probability that human cases would probably occur from drinking raw milk.

In 1899, Cox and Sader first used the agglutination test in the diagnosis of human brucellosis. They found it positive in a soldier returning from Puerto Rico. This was followed by a series of positive cases seen in soldiers returning from the Philippines during the next six years, dur-

ing which time Craig also reported the first endemic case, which occurred in Washington, D. C. Next Gentry and Ferenbaugh recognized cases in Texas, and in 1913 Yount and Looney in Arizona. However, the report of an outbreak in Phoenix in 1922 by Watkins and Lake, forcibly focused attention on this disease within the United States and established it as a clinical entity in this country. As a result, brucellosis became recognized as a common and widespread disease throughout the nation, presumably due to *B. abortus*.

The Organism. Three generally recognized species of the genus *Brucella* are accepted: the caprine or goat strain, *Brucella melitensis*, also known as *Alcaligenes melitensis*; the porcine strain, *Brucella suis*, also described as *B. melitensis* var. *suis*; the bovine strain, *Brucella abortus*, otherwise known as Bang's bacillus, *Alcaligenes abortus*, or *B. melitensis* var. *abortus*.

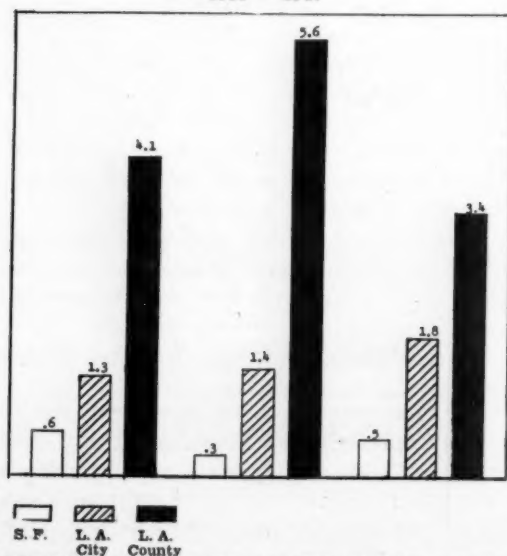
While described as rod-shaped, coccil, coccobacillary, or bacillary forms occur in single cultures of any of the three species: these characteristics vary with age and different cultural conditions, but one type usually predominates in any given culture at one particular time.

They are Gram negative, nonmotile, nonspore forming, bacteria that are micro-aerophilic upon initial isolation from the host, growing best in an atmosphere containing 20 to 25 per cent CO₂ in primary cultures. These organisms prefer mesenchymal structures within the animal body and they are strictly parasitic.

Due to the well-known proclivity of brucellae to produce disease in laboratory workers investigating suspected material, commercial laboratories are none too fond of attempting to isolate the species. The result is that, in practice as a rule, only occasional cultures are obtained, but in the hands of those especially interested and technically proficient, their cultivation has not been too difficult, even during afebrile periods, a fact not too well known to workers outside the field. Cultures should not be discarded as negative for four weeks. Once the organisms have become adapted to subculture they grow readily.

Further comment anent their physical characteristics will be limited to two statements: (1) lactic acid fermentation of contaminated milk destroys the organism during cheese making within a few days in most instances, though

BRUCELLOSIS CASE RATES
Los Angeles City and County*
San Francisco City and County
1933 - 1947



cases are cited in which two colonels ate goat cheese on Malta and came down with Melitensis infection in London a few weeks later; (2) organisms outside the body contained within feces or other organic material may survive for many weeks.

Definition.—Brucellosis is an acute, subacute, protracted or chronic disease caused by one of the brucella organisms, primarily occurring in goats, hogs, cows, or sheep, and incidentally in man or other animals.

Pathogenesis.—The commonest accepted atri of infection are through abrasions or cuts in the skin, through the intestinal tract, or through the respiratory system. The highest morbidity is in persons who directly handle animals or their secretions, particularly slaughterhouse workers. Water-borne epidemics, though rare, have occurred. Raw milk has long been accepted as probably the commonest source of the infection in people not handling host animals. The evidence as to when, how, and why this happens is confusing. In the hands of various investigators, experimental feedings of *Brucella abortus*-infected raw milk have failed repeatedly to induce the infection in man. Furthermore, it is difficult to reconcile the increasing incidence of brucellosis occurring in our population with the increasing pasteurization of milk supplies and the continuing improvement of the nation's dairy herds by the constant weeding out of infected animals.

Until the present, insufficient steps have been taken to differentiate the specific causative organism in the reported cases of brucellosis, as to bovine, porcine or caprine strains. The application of more uniform and better standardized procedures to this problem is urgently needed. There is probably no other common disease in this country concerning which the profession is in such hearty agreement in their belief that the diagnosis must be established finally through laboratory methods. Yet if aliquot portions of blood from the same patient be submitted to various good laboratories for the same diagnostic procedure relative to brucellosis, e. g. an agglutination test, the widely different results reported will be astounding.

Brucella abortus has been isolated from a number of different animals, domestic and wild, including fowl.

Brucella suis, primarily a disease of hogs, is also found in man, cattle, horses, dogs, and fowl.

Brucella melitensis, ordinarily a disease of goats, occurs as well in sheep, cattle, swine, wild guinea pigs, and man. It is much the most virulent organism of the three for man, producing serious lesions particularly osteomyelitis, and is much dreaded in Argentina, where it is common.

The cow, complacent animal, is not averse to picking up and passing on, virtually unchanged, each one of the three species of *Brucella*.

Minute quantities of infected inocula of any of the strains produce growth quickly in nine to 11 day chick embryos, and this is being used more and more in establishing the diagnosis.

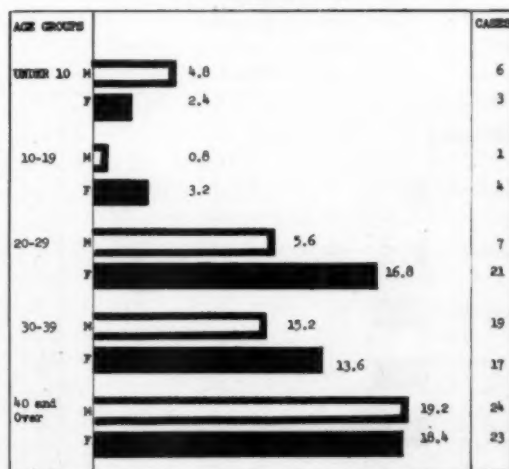
Brucellae entering the blood stream are rapidly removed by the fixed tissue phagocytes of the liver and spleen. They disappear very rapidly from the liver and bloodstream in any quantity, but may be recovered relatively easily for days or weeks from the spleen, lymph glands, or bone marrow. This is likewise said to be true of the urine, but our experience has been otherwise. The growth within, and release from, the cytoplasm of the reticular endothelial cell, either continuously or in showers, accounts for the prolonged and variable febrile course of the disease.

Pathology.—Three types come to autopsy: 1. the acute localized type, particularly ulcera-

BRUCELLOSIS CASES REPORTED

By Age and Sex
1944 - 1947

Los Angeles City



TOTAL CASES 125
TOTAL Male 57
TOTAL Female 68

Source: L. A. City Health Department, Statistics Division.
2-18-49.

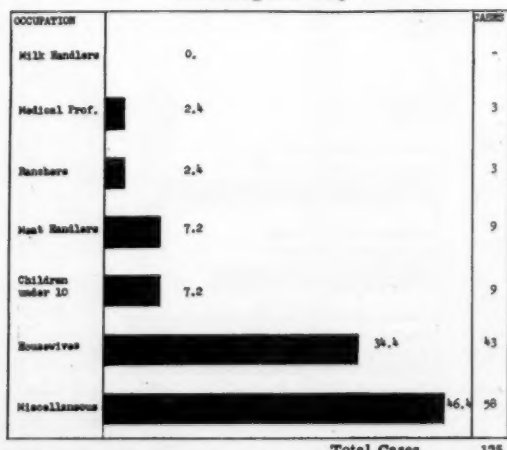
tive endocarditis; 2. the acute septicemic or typhoidal type; 3. the chronic prolonged, lymphogranulomatous type. There are no mortality figures worth quoting but the death rate in this country is probably very low; all cases considered, probably well under one per cent, but the entire concept is inaccurate and conjectural.

The organism has frequently been recovered from the tonsil. Pneumonia of a severe lobar type occurs. Epididymitis, orchitis, arthritis, myositis, salpingitis, osteomyelitis, spondylitis, meningitis, encephalitis and many more have been seen. Essentially the pathologic changes are those of an infectious granuloma with proliferation of the large mononuclear reticulo-endothelial cells, with focal necrosis, fibrinous exudate, and occasional hemorrhages occurring.

Incubation period.—While it is true that this has been relatively short for workers accidentally infected in the laboratory, usually five to seven days, it has gradually become apparent that most clinical cases have a much longer incubation period than has generally been believed. Hardy carefully studied 52 cases with regard to the incubation period and found it varied from one to 16 weeks, but only in four was it over two months, and only in one was it less than one month. It is usually about six weeks.

Etiology.—World-wide in distribution, brucellosis is found wherever contagious abortion occurs in cattle or hogs.

BRUCELLOSIS CASES REPORTED
By Occupation
1944 - 1947
Los Angeles City



Source: L. A. City Health Department, Statistics Division.
2-18-48.

It is largely a disease of middle life though it may occur at any age, about 10 per cent being in children.

In those engaged in animal husbandry males are three times more likely than females to contract the disease, but this is not true of people who do not come into direct contact with infected animals, in which event the incidence is the same in both sexes.

More cases occur in farming districts and small towns than in cities, and the highest morbidity is in packing house workers and veterinarians, followed less closely by dairymen and farmers.

The greatest number of original infections occur in the spring when animals give birth to their young, and when they provide the greatest milk supply. It is noteworthy that people who habitually drink raw milk from infected herds rarely seem to suffer ill effect, whereas one drink of the stuff by a newcomer may be followed by an attack of brucellosis. McBryde, Daniel and Poston studied an orphanage in which 210 children were drinking milk infected with *B. suis*. Ordinarily this strain is presumed to provide a higher attack rate and a more severe disease than *B. abortus*. However, only two children developed clinical disease; seven developed agglutination titers varying from 1:20 to 1:640; and 13 showed positive skin tests. Two months after substituting pasteurized milk, the positive agglutination reactions in all seven had become negative.

Dooley in 1934 also studied 263 boys known to be drinking raw milk from an infected herd. Only two clinical cases developed. Yet agglutination titers ranging from 1:40 to 1:1200 developed in 41 per cent of the boys, and over a prolonged period of observation 15 of them maintained titers of 1:320 or higher with no evidence whatever of clinical symptoms.

While agglutination titers may either drop to low figures or else disappear rapidly after recovery from the disease, or after infected products are removed from the diet, subsequent infections with virulent streptococci or other organisms have produced anamnestic reactions, raising the titers again to high levels, as high as 1:1280 having been noted under such circumstances.

Huddleson, on the other hand, reported the

agglutination test negative in 29 per cent of 100 bacteriologically proven cases.

There are many reasons for such variations, among which are isoagglutinating or otherwise unsuitable antigens, as well as blocking antibodies which prevent the reaction from occurring, similar to those described in the Rh factor work. Weiner and Race, using identical technics in their original work, showed the effect of heat in potentiating agglutinins in freshly drawn serum, as well as the enhancement of agglutination reactions by substituting albumin for saline solution in all suspensions of antigen.

Classification.—None of the protracted fevers occurring in the temperate zone is more bizarre and protean in its manifestations than brucellosis. Over 150 various clinical signs and symptoms have been described, and these wide variations in different cases have, at times, destroyed their value as diagnostic criteria. Because of this, Eyre prefers to classify brucellosis cases as acute, subacute and chronic. Acute cases are arbitrarily limited to the three month period immediately following initial infection: subacute from three months to one year; chronic over one year. However, to any such classification must be added the great number listed under the heading of subclinical infection, such as those cited above in the studies of Dooley, McBryde et al.

While chronic brucellosis may merely be an attenuated, changed, and prolonged form of the subacute, this is not usually the case. More commonly it is a disease of insidious onset and prolonged course, of such vague and shifting symptoms as to tax the patience, diagnostic ability, and therapeutic approach of the most conscientious clinician. Indeed, proven cases often have so many complaints that it is hard to evaluate and separate the psychosomatic, the neurasthenic, and the hypochondriacal from the real. As these are the same symptoms complained of purely on a psychosomatic bases by the true neurotic; and since there is nothing to prevent these neurotic types of people from contracting chronic, low-grade brucellosis in the same manner as those who were previously emotionally stable; the picture becomes a most confusing one. Therefore, the presumptive diagnosis of brucellosis, (when not substantiated by actual isolation and identification of brucellae, but made by any or all of the other means at our disposal) must frequently be wrong.

In these cases of chronic brucellosis, common complaints are those of weakness, excess fatigability, prostration, anorexia, loss of weight, headache, rachialgia, myalgia, palpitation, low-grade fever, night sweats, insomnia, severe depression, and many others.

We still prefer the classification of Giordano and Sensenig as giving us something more definite to work from in the cases we see, viz., glandular, visceral or typhoidal, septic, arthritic, and neurologic. I think it is clear from what has already been said that there must be much overlapping systemically in any such classification, but it is equally true that the undulant fever type is not very common in this country; an abrupt onset and a continuous course is far commoner.

Signs and Symptoms.—The acute type is frequent in this country. While the onset is a good deal the same in all types classified by systems, the symptoms referable to those body structures most involved usually soon clearly dominate the picture.

The onset is as variable as the subsequent clinical course. It usually is with headache, insomnia, mental depression, muscular aching, excess fatigability, shifting joint pains, and a rising daily septic temperature with morning remissions. A relatively slow pulse is the rule. Meningism is common. Once the fever is well established, sensations varying from chilliness to true rigors, followed by drenching foul-smelling sweats, are characteristic and quite consistent. Sudamina and a fine desquamation often result. Many run a septic febrile course from two weeks to 10 months with morning remissions, but with no true afebrile periods. Symptom cycles in the undulant fever type usually last 10 to 12 days with a few days intermission, the intermissions gradually becoming longer.

The tongue is furred with moist margins; the patient appears sick and apprehensive; a congested sore throat, husky voice and slight cough are common; periarticular pain and arthritis may dominate the picture; asthenia, distention, indigestion and constipation occur, accompanied by increasing anorexia and weight loss; spongy bleeding gums are common; swollen parotids are seen; the enlarging spleen may get painful; progressive anemia sets in; only good nursing will prevent the development of sordes or bed sores.

The erythrocyte count drops 20 to 40 per cent.

In acute or complicated cases the leukocyte count is elevated as a rule, though malignant leukopenia has been seen; otherwise normal counts with 40 to 50 per cent lymphocytes are the rule.

Complications and sequelae are many and variable, but among more serious and distressing ones may be mentioned subacute bacterial endocarditis, acute congestive failure, lobar or broncho pneumonia, atypical pneumonia, severe chronic bronchitis, meningitis, encephalitis, mastitis, epididymitis, orchitis, salpingitis, habitual or occasional abortion, and commonly with the caprine strain, severe osteomyelitis, often seen in cases in the Argentine.

In most instances differential diagnosis may only be made with accuracy with the assistance of laboratory methods. Among entities in this area commonly requiring differentiation, may be mentioned: typhoid or paratyphoid, miliary tuberculosis, endemic typhus, Q fever, pulmonary or systemic coccidiomycosis, subacute bacterial endocarditis of other origin, atrophic or rheumatoid arthritis, rheumatic fever, infectious mononucleosis, Hodgkin's disease, Boeck's sarcoid, tertiary lues, and other rarer conditions. Its presence must be suspected and ruled out in all obscure or continuous fevers of unproven etiology.

Skin testing.—Reliance upon this procedure alone as being diagnostic of existing active brucellosis is erroneous and dangerous. Neither the antigens used, nor the methods employed, have been universally standardized or their interpretation agreed upon. Tremendous numbers of people entirely without manifestation of any clinical disease have positive skin tests; bacteriologically proven cases with negative skin tests have been reported frequently. When skin testing is routinely done, the danger of sloughing and of severe systemic reaction ever must be kept in mind whenever large doses or too strong material are used. While a few continue to use intradermal testing with *Brucella abortus* vaccine, most have abandoned the method in favor of Huddleson's antigen. Known as brucellergin, it is described as a "suspensoid of nuclear protein." A tiny intradermal wheal is made and read at 24 and 48 hours. Its reactions are not severe and it does not produce skin sensitivity. Repeated skin testing with vaccines commonly employed, often, but not invariably, increases the agglutinins in the blood of that patient. Thus the effect produced either through

skin testing, or by using vaccine therapy, may invalidate aid needed from the laboratory at a later date. It would appear to me that intradermal testing and indiscriminate vaccine therapy, as at present widely used, lead to erroneous interpretations of both diagnosis and therapeutic efficacy. It has yet to be shown that a positive skin test in brucellosis is of any greater significance relative to this disease than a positive tuberculin reaction is in relation to tuberculosis. The method has caused so many incorrect diagnoses, and has led to so much mental and economic misery, that we rarely employ the method any more.

Similarly the opsonocyclophagocytic index and the complement fixation tests have been weighed and found wanting. Neither proves the presence or absence of active disease, but merely that either a non-infected susceptible status presumably is present, or that operative immunity appears to be in action: patients with proven *B. melitensis* infection have presented the picture of immune subjects; tularemia causes increased phagocytosis; neither test proves brucellosis present or absent.

Those receiving cholera vaccination develop high agglutination titers against *brucella* antigens. The duration of this phenomenon is unknown, nor whether it may reappear as an anamnestic reaction.

In our opinion it becomes apparent from the above discussion that the diagnosis and differential diagnosis of brucellosis must depend upon:

1. Evaluation of epidemiological data when available.
2. A critical analysis of clinical signs and symptoms.
3. Laboratory procedures considered in relationship to each other and to the clinical picture, preferably universally standardized, technically dependable, competently done, differentially eliminative, and comprehensive in scope. A great deal of this is in the future and, for our peace of mind, is not necessary in many cases.

Prognosis.—The death rate has rarely exceeded 2 per cent. It has been higher in a few epidemics, but sporadic endemic cases probably are lower than this figure. The prognosis must always be guarded in the malignant types. Low agglutination titers in critically ill patients, as well as a severe neutropenia with a falling white count are grave prognostic omens.

Treatment.—The most important step in the prevention of brucellosis is the pasteurization of all milk products. San Francisco County (fig. one) has done this for years and its remarkably low rate in contrast with Los Angeles, one might think would influence the latter city and county to mend its ways, especially inasmuch as tuberculosis and Q fever, as well as other diseases are spread through raw milk. Unfortunately to date, they have not seen the light. It is customary to remove all positive reactors from certified dairy herds as soon as they are determined, but the milk is drunk unpasteurized before and after this occurs.

The next step in prophylaxis is to get rid of all infected animals. Such a concept at present appears utopian in this country. In fact sheep are believed to have become infected only since 1930 in this country. However, dairy herds are being improved in ever increasing numbers, and in North Carolina the rate of infection has been reduced to less than one per cent. Swine are heavily infected in the Midwest and the goats along the border in the Southwest and in Mexico, in which sections the disease has been known under different names for years.

Vaccine Therapy.—There is great difference of opinion among members of the profession as to the kind of antigenic material and type of reaction from it that are desirable in treating brucellosis, as well as to the type of case suitable for treatment, or whether such therapy has any place at all in our armamentarium. Certainly it is the consensus that acute brucellosis should not be so treated, nor skin tested. It appears best reserved for treatment of chronic cases. A preliminary skin test with 1:10,000 brucellin, giving 0.1 c.c., or enough to produce a visible wheal intradermally, is a safe initial test. *Patients without agglutinins in their blood do not respond to vaccine therapy, nor will such therapy produce agglutinins in their sera as a rule.* Huddleson's brucellin in strength indicated by the sensitivity test is preferred by most. It should not be used in such amounts or strength as to produce systemic or severe local reactions. Intervals should not be less than four nor more than nine days between injections. While Huddleson and others have used vaccine or other antigenic material intravenously to produce shock therapy, there would seem little need for this radical procedure today. It is not free from danger. As we observe it in civil prac-

tice, probably most of the cases receiving vaccine today do not have clinical brucellosis in any form.

Supportive therapy is that of any continuous fever and is symptomatic in nature.

Active Therapy.—When no contraindication exists, and when the patient has never been treated previously with any of the sulfonamide drugs, treatment with sulfonamides has never failed to effect a cure in our clinic. Conversely, when patients have been given sulfonamide drugs at some time before we have seen them, without having been cured, in no single instance have we ever subsequently cured a case with these drugs.

The secret lies in maintaining accurately titrated high blood levels of sulfadiazine or sulfanilamide constantly present for a period of two weeks. This is a hospital procedure: the patient must be carefully watched and all necessary laboratory safeguards applied. The level is usually maintained at 15 mg. per cent or higher, and in those patients not making progress after several days of continued observation, fluids are carefully restricted for a day or two to increase the sulfa-levels in the blood. The kidneys must be carefully watched and so must the blood for signs of developing anemia or leukopenia. Transfusions are frequently in order. Keep the Ph of the urine at 7.5. We have cases remaining cured by this method for every year from 1939 to date. The reason these drugs fell into disrepute in the treatment of this disease was because doses were inadequate, blood levels were not ascertained and controlled, the patients were not hospitalized, and the treatment was not continued long enough. If you are not successful in the first attempt, or if treatment has to be interdicted, it is useless ever to try it again.

In the combined treatment with sulfadiazine and streptomycin, we limit it to those patients who have been unsuccessfully handled with inadequate sulfonamide therapy. We prefer to use equal parts of sulfadiazine and sulfamerazine, though we have used sulfadiazine alone, and maintain the sulfa blood level around 15 mg. per cent. One-half gram of streptomycin is given intramuscularly every six hours, ostensibly for two weeks, but at any complaint of tingling of the hands or feet or of dizziness or vertigo, one or two doses are withheld and the dose changed to one-fourth gram every six hours for the balance of the two weeks. Results have

been good, and so far there has not been a relapse.

We have treated 10 cases with aureomycin, duomyein brand, with a total dosage of 50 mg. per kg. of the patient's body weight in each 24 hours, giving one dose every four hours for the first two days and every six hours thereafter until the end of the fourteenth day. There have been two relapses. One was again treated by the same method and is still free from symptoms so far. The other is undergoing treatment with streptomycin and sulfonamides at present. Aureomycin is not effective against the brucella organism in vitro, yet seems to work well clinically. It has the advantage of being efficacious when given by mouth, and of low toxicity. Occasionally it causes nausea and vomiting, but this can be stopped by preceding each dose for a time with five or 10 grains of chloretone, and giving smaller doses more often to make the same 24 hour quantity. We intend to try combining this drug with sulfadiazine.

Artificial fever therapy in the hyperthermia cabinet, and based upon the thermal death point of brucellae, maintaining the body temperature of the patient at 106 F. for five to six hours, and repeated three or four times, has given good results. Only those with good cardiac reserve should submit to it, and it is questionable whether any patient over 35 years of age should take it. We saw one apparently husky truck driver of 36 succumb quickly to pulmonary edema after the third hour of treatment. Most brucella organisms are inhibited or die after a few hours of temperature over 105 F.

In chronic brucellosis of low grade types, we have lately been using Aralen (Winthrop). It comes in 250 mg. tablets and the dosage is two tablets twice daily for four days, followed by 2 tablets every four days for six weeks. The end result of such treatment is still to be determined, but temporarily, during the six months we have used it, patients have been very pleased with apparent improvement and the euphoria shown.

SUMMARY

1. At times the disease is one of the most difficult of all infectious diseases to diagnose.
2. It exists in acute, subacute, chronic, subclinical, and latent forms.
3. The diagnosis rests with the laboratory to a degree that is uncommon with most diseases.
4. Active proven disease exists in which none

of the usual laboratory tests is of assistance in diagnosis, other than positive culture.

5. It is amenable to sulfonamide therapy with high blood levels, provided it has not been previously unsuccessfully treated with inadequate levels or else for too short a time.

6. It may also be treated successfully in its severer forms with a combination of sulfadiazine or other sulfonamides and streptomycin; it also responds to treatment with aureomycin.

7. The low-grade form appears to respond to aralen.

8. Vaccine therapy should only be employed as a last resort in definitely proven chronic cases.

9. The skin test cannot be accepted as an index of active disease.

10. Agglutination tests may be inhibited through the presence of blocking substances present. This is capable of being overcome.

11. The one sure diagnostic test is a positive culture obtained from the patient. This is not easily obtainable in most instances.

60 South Grand Ave.
Pasadena, California.

BIBLIOGRAPHY

- Amoss, H. L.: Localization of brucella. *Internat. Clin.* 4:93, 1931.
- Amoss, H. L., and Poston, M. A.: Undulant (Malta) Fever: isolation of brucella organism from stools, *J.A.M.A.* 93:170, 1929.
- Angle, F. E., et al: Skin testing for brucellosis (undulant fever) in school children. *Ann. Int. Med.* 12:495, 1938.
- Bang, B. The etiology of epizootic abortion, *J. Comp. Path. & Therap.* 10:125, 1897.
- Beattie C. P. and Rice R. M.: Undulant fever due to Brucella of the porcine type - Brucella suis: report of milk borne epidemic, *J.A.M.A.* 102:1670, 1934.
- Bevan, L. E.: Infectious abortion of cattle and its possible relation to human health, *Tr. Roy. Soc. Trop. Med. & Hyg.* 15:215, 1922.
- Bogart, F. B.: Pulmonary changes in undulant fever, *South M. J.* 29:1, 1936.
- Bower, A. G., and Chudnoff, J. S.: Laboratory procedures in diagnosis of brucellosis, *Calif. Med.* 69:2, 1948.
- Bruce, D.: Note on the discovery of a microorganism in Malta Fever, *Practitioner* 39:161, 1887.
- Carpenter, C. R., and Boak, R.: (1) Summary of some Brucella abortus studies, *Cornell Veterinarian* 18:204, 1928. (2) Laboratory diagnosis of undulant fever, *J. Lab. & Clin. Med.* 15:437, 1930. (3) The significance of the horse in brucellosis, *J. Bact.* 33:40, 1937.
- Carpenter, C. M., and Merriam, H. E.: Undulant fever from Brucella abortus, *J.A.M.A.* 87:1269, 1936.
- Craig, C. F.: The symptomatology and diagnosis of Malta fever, with the report of additional cases, *Internat. Clin.* 4:89, 1936.
- Darley, W., and Gordon, R. W.: Brucella sensitization: a clinical evaluation, *Am. Int. Med.* 25:528, 1947.
- Davis, C. L.: A clinical case of brucellosis in a dog, *North Amer. Veterinarian*, 18:48, 1937.
- DeJons, R. N.: Central nervous system involvement in undulant fever with report of a case and survey of literature, *J. Nerv. & Ment. Dis.* 83:430, 1936.
- Dooley, P.: Undulant fever: epidemic of subclinical infection with Brucella, *Arch. Int. Med.* 50:373, 1932.
- DeBois, C.: Malta fever in domestic animals, *Rev. Vet. Militaire*, 68:120, 1911.
- Duncan, J. T.: Contagious abortion and undulant fever, *Brit. M. J.* 1:554, 1925.
- Eisele, C. W.; McCullough, N. B.; Beal, G. A., and Burrows, W.: Development of brucella agglutinins in humans following vaccination for cholera, *Proc. Soc. Exp. Biol. & Med.* 61:89, 1946.
- Eisele, C. W.; McCullough, N. B.; Geal, G. A., and Rottschaefer, W.: Brucella agglutination tests and vaccination against cholera, *J.A.M.A.* 135:983, 1947.
- Eisele, C. W.: (1) Problems in diagnosis of chronic brucellosis, *M. Clin. No. Amer.* 183 (Jan.), 1947. (2) Brucella antibodies following cholera vaccination, *Am. Int. Med.* 28:4, 1948.
- Evans, A. C.: Studies on chronic brucellosis, *Pub. Health Rep.* 52:1, 1937.

- Eyre, J. W. H., et al: Naturally acquired infection (*M. melitensis*) in various animals. Reports of Commission appointed by the Admiralty for investigation of Mediterranean Fever, Harrison and Sons, London, 1907.
- Francis, E., and Evans, A. C.: Agglutination, cross-agglutination, and agglutinin absorption in tularemia. *Pub. Health Rep.* 41:1273, 1926.
- Gentry, E. R., and Ferenbaugh, T. L.: Endemic Malta fever in Texas with the isolation of the *Micrococcus melitensis* from two patients. *J.A.M.A.* 57:889, 1911.
- Green, M. E., and Freyberg, R. H.: Incidence of brucellosis in patients with rheumatic disease. *A. J. Med. Sci.* 201:495, 1941.
- Haden, R. L., and Kyser, E. R.: Pulmonary manifestations of brucellosis. *Cleveland Clin. Quart.* 13:229, 1946.
- Hamman, L., and Wainwright, C. W.: The diagnosis of obscure fever; diagnosis of unexplained, long-continued, low-grade fever. *Bul. Johns Hopkins Hosp.* 58:109, 1936.
- Harris, H. J.: Brucellosis: problems of diagnosis and treatment. *Bul. N. Y. Acad. Med.* 22:147, 1946.
- Harvey, W. A.: Pulmonary Brucellosis. *Am. Int. Med.* 28:4, 1948.
- Holt, R. L., and Reynolds, P. H.: Malta fever and its prevalence along Mexican border. *Mil. Surg.* 56:414, 1925.
- Horning, B. G.: Outbreak of undulant fever due to *Brucella suis*. *J.A.M.A.* 105: 1975, 1935.
- Huddleson, I. F., et al: Non-specific agglutination in the *Brucella* group. *Tech. Bul. No. 149, Mich. Ag. Sta.*, 1936.
- Huddleson, I. F.: Immunity in Brucellosis. *Bact. Rev.* 6:111, 1942.
- Hughes, M. L.: Mediterranean, Malta or undulant fever. *MacMillan Co., London*, 1897.
- Johnson, R. M.: Pneumonia in undulant fever: report of three cases. *A.J.M. Sci.* 189:483, 1935.
- Jordan, C. F., and Borts, I. H.: Occurrence of *Brucella melitensis* in Iowa. *J.A.M.A.* 130:72, 1946.
- Keefer, C. S.: Malta fever originating in Baltimore. *Bul. Johns Hop. Hosp.*, 35:6, 1924.
- McBryde, A.: Daniel, N. C., and Poston, M. A.: Brucella infection in children; agglutination reactions and intracutaneous tests. *J. Pediat.* 4:401, 1934.
- Marston, J. A.: Report on fever (Malta). *Gt. Brit. Army Med. Dept., London Reports*, 1861.
- Manefee, E. E., Jr., and Poston, M. A.: Significance of standard laboratory procedures in diagnosis of brucellosis. *A. J. M. Sci.* 197:646, 1939.
- Meyer, K. F., and Eddie, B.: Laboratory infections due to *Brucella*. *J. Inf. Dis.* 68:24, 1941.
- Parsons, P. B., and Poston, M. A.: Pathology of human brucellosis; report of four cases with one autopsy. *South M. J.* 32:7, 1939.
- Parsons, P. B., and Poston, M. A.; and Wise, B.: Pathology of human brucellosis. *A. J. Path.* 75:634, 1949.
- Poston, M. A., and Manefee, E. E., Jr.: Acute brucellosis with bacteremia and oral lesions: treatment with immune human blood. *New Eng. J. Med.* 219:798, 1938.
- Poston, M. A., and Smith, D. T.: Successful treatment of brucella meningitis with immune human serum: isolation of organism by modified cultural method. *New Eng. J. Med.* 218:369, 1936.
- Prickman, L. E., and Popp, W. C.: Treatment of brucellosis by hyperpyrexia induced by Simpson-Kettering hypertherm. *Proc. Staff Meet., Mayo Clin.* 11:506, 1936.
- Rubinstein, A. D., and Shaw, C. I.: Infectious mononucleosis simulating brucellosis. *New Eng. J. Med.* 231:111, 1944.
- Schroeder, E. C., and Cotton, W. E.: An undescribed pathogenic bacterium in milk. *Am. Vet. Rev.* 40:195, 1911.
- Shaw, E. A.: (1) Mediterranean fever in goats, cows, and other animals: Reports of Commission Appointed by the Admiralty for the investigation of Mediterranean Fever, Harrison & Sons, London, 1905. (2) The ambulatory type of case in Mediterranean or Malta fever. *J. Roy. Army Med. Corps* 6:638, 1906.
- Smith, T.: Strain of *Bacillus abortus* from swine. *J. Exper. Med.* 49:671, 1929.
- Spick, W. W., et al: Treatment of Brucellosis. *J.A.M.A.* 139:6, 1949.
- Spick, W. W.: Pathogenesis of human brucellosis with respect to prevention and treatment. *Am. Int. Med.* 29:2, 1948.
- Spick, W. W., et al: Aureomycin Therapy in human brucellosis. *J.A.M.A.* 138:16, 1948.
- Stiles, G. W.: Brucellosis in goats; recovery of *Brucella melitensis* from cheese manufactured from unpasteurized goats' milk. *Rocky Mt. M. J.* 42:18, 1945.
- Traum, J.: Infectious abortion investigations in pigs. *Ann. Rep. Dept. Ag. Washington, D. C.*, 1914.
- Urschel, D. L.: Sulfonamide therapy in brucellosis; review of literature. *J. Indiana M. A.* 37:57, 1944.
- Venale, H.: Report on the cases of fever from Cyprus, Malta, and Gibraltar. *Brit. Army Med. Dept. Rep.* 1879.
- Watkins, W. W., and Lake, G. C.: Malta fever with especial reference to Phoenix, Ariz.: epidemic of 1922. *J.A.M.A.* 89:1581, 1927.
- Welch, H.: Wentworth, J. A., and Mickle, F. L.: Use of sulfonamide in diagnosis and treatment of brucellosis. *J.A.M.A.* 111:226, 1938.
- Wise, B.: Acute brucellosis. clinical, bacteriologic and serologic studies of three patients. *Arch. Int. Med.* 72:346, 1943.
- Wise, B., and Craik, H. W.: Brucella complement-fixation reaction. *J. Inf. Dis.* 70:147, 1942.
- Yount, C. E., and Looney, R. N.: Malta fever with a preliminary report on cases occurring in Arizona. *Arizona M. J.* 1:18, 1913.
- Zammit, T.: (1) A preliminary note on the susceptibility of goats to Malta fever. *J. Roy. Army M. Corps* 5:341, 1905. (2) The reaction of goat's milk to the *M. melitensis*. Reports of Commission Appointed by the Admiralty for investigation of Mediterranean fever. Harrison & Sons, London, 1906.

BRUCELLA INFECTION OF BONES AND JOINTS

CHARLES N. PLOUSSARD, B. S., M.D.,
F.A.C.S.

Phoenix, Arizona

BRUCELLOSIS is a general infection caused by one of the sub-species of *Brucella melitensis*. The natural habitat of these organisms is in the domestic animals. This disease is characterized in the cow by repeated abortions, followed often by a carrier state through chronic infection of the udder, and excretion of the bacteria in the milk.

For man the principle contact sources are cattle, goats, sheep, and swine. Undulant fever in man and the epidemic infectious abortions in animals were unrelated until Evans, in 1918, called our attention to the relationship existing between the organisms causing the two diseases. The causative organism was discovered in 1895 by Bang, and Von Stribolt. MacNealy and Heri isolated the specific organisms from cattle in

1910. The first of undulant fever reported in man was by Craig in 1905. The diagnosis and treatment of this condition has, in the past, been indefinite and debatable. The condition has often been overlooked because of longstanding symptoms of aching, fatigue, and depression. Many patients have been branded as neurasthenics, because of the indefinite symptomatology. The diagnosis and treatment of the disease is chiefly the concern of the internist and the general practitioner. However, a review of the literature will show that brucellosis demands the attention of the orthopedist almost as often as it does any other medical specialty.

An early symptom of special interest in this disease is low back pain. The orthopedist should always be on the look-out for this disease in his "hard to account for symptoms patient." The symptoms which usually bring the patient

to the doctor are caused by the chronic stage of the disease. The term "Chronic Undulant Fever" is rather misleading, particularly the word "fever", as in the chronic state, there is often very little elevation of the temperature. More confusion results from the various manifestations of the disease that make it resemble both tuberculosis and syphilis. Typhoid, para-typhoid, rheumatic fever, influenza and some other diseases, must also receive careful consideration in the differential diagnosis. Brucellosis attacks the vertebrae more often than any other bones in the body. The most common location, in the vertebrae, is in the lumbar spine. It is most often dry, although abscess formations have occurred which have necessitated incision and drainage.

Hardy reports 375 cases occurring in Iowa in which 32 per cent involved the joints. Simpson reports 175 cases in Ohio, 32 per cent involving joints. Steindler refers to polyarthritic dissemination of the serous type and states that joint manifestations in undulant fever occur eight to twelve weeks after the acute onset of the disease, which helps to differentiate this disease from progenic arthritis or osteomyelitis. This joint is illustrated by the case which I will present. Many cases of myotendonitis will be found after careful study by the internist and orthopedist to be caused by brucellosis. In these cases there is usually a very confusing history with symptoms of generalized weakness, headaches,

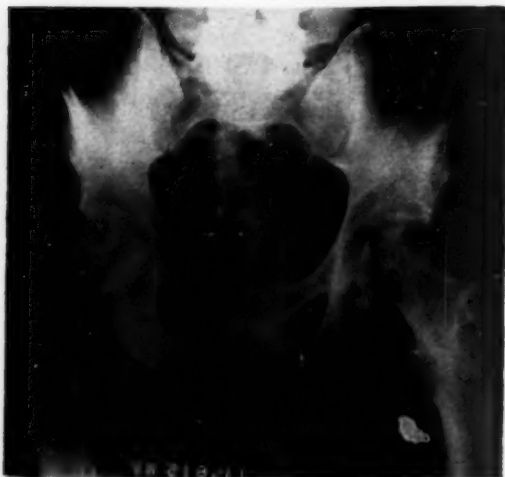


Fig. I

X-ray appearance of left hip joint area approximately three months after injury, showing septic necrosis of hip joint in anteroposterior view.



Fig. II

X-ray appearance of left hip joint area approximately three months after injury, showing septic necrosis of hip joint in lateral view.

eye aches, pain, tightness in the neck, and inability to concentrate. These indefinite symptoms cause many to be called neurasthenic and some of them have been to many doctors. The location of this myotendonitis is usually in the hips, glutei muscles or shoulders where it appears as a subacromial bursitis, either chronic or acute.

Much more work needs to be done before brucellosis can be properly evaluated. We must have more standardized laboratory procedures, more clinical observation, and more study of its treatment. It is estimated that 30,000 to 40,000 new victims are added each year to the thousands already suffering from undulant fever in this country. Various treatments have been used such as the vaccine, supportive treatment, the sulfonamides, streptomycin, and penicillin, and some years ago intravenous antiseptics such as metaphen and mereurochrome were widely used.

It was recently stated that a streptomycin-sulfadiazine combination effected a cure in nine cases. This was reported in *The Arizona Republic* in the article, "Your Health and Mine." This has not been confirmed by other authoritative medical information.

I will now present a case of undulant fever involving the hip joint. I have found seven similar cases reported. O'Donoghue reports a case of septic arthritis of the right hip joint in a girl

12 years of age in which an operation was done because of the probable bulging of the joint capsule. The pus obtained contained *brucella melitensis*. The end result in this case was ankylosis of the hip.

REPORT OF CASE

G. R., aged 37, was admitted to the hospital October 23, 1941. He had wrenched the left hip while moving heavy machinery on October 15, 1941. He hobbled along on this leg for two days until the pain became unbearable, then he spent a week in bed at home. During this time he lost twenty pounds of weight. Following his stay at home he sought medical attention and was admitted to the hospital. An x-ray was taken on admission to the hospital, which revealed a flexion deformity of the left hip and two minute chips from the left acetabulum. The leukocyte count was 14,000 per cubic millimeter. Traction was applied to the leg and sedatives were given, which gave very little relief. His temperature ranged from 98.6 to 99.6. He was dismissed six days after the admission.

He was readmitted to the hospital on February 4, 1942, approximately three months after his injury, because his pain, discomfort and disability was gradually increasing. The agglutination reactions on the blood at that time were negative with the exception of that for *brucella abortus*. These agglutination tests were positive in all dilutions. The purified protein derivative, strength No. 1, was negative; and strength No. 2 was very mildly positive. X-ray of his chest taken at this time was normal and an x-ray on his left hip, taken also at this time, revealed what the roentgenologist reported as septic arthritis of the left hip of *brucella* origin, (Fig. 1) showing the anteroposterior view of the left hip area and (Fig. 2) showing the lateral view of the left hip area.

This patient continued to improve and roentgenogram (Fig. 3) of the left hip in the anteroposterior view approximately one year later shows complete healing of the infectious process with no residual disability. However, the agglutination reactions for *brucella abortus* were still positive when patient was dismissed from the hospital.

On April 7, 1945, a recheck of this patient's blood still showed positive agglutination of undulant fever but there was absence of clinical or roentgenological evidence of the disease.

SUMMARY

It has been the purpose of this brief paper to present a case of brucellosis involving the hip joint and to discuss, briefly, the occurrence, di-

agnosis, and the treatment of brucellosis infection of the bones and joints.

BIBLIOGRAPHY

- Julowski, J.: Undulant (Malta) fever, osteomyelitis and arthritis. *S. G. O.* 62:759, 1936.
- O'Donoghue, A. F.: Septic arthritis in the hip caused by *Brucella melitensis*. *J. Bone & Joint Surgery* 15:506, April 1933.
- Chuinard, E. G.: Orthopedic aspects of brucellosis. *Northwest Med.* 43:279, October 1944.
- Steindler, A.: Orthopedic complications of brucellosis. *J. Iowa M. Soc.* 30: 257, June 1940.
- Dobelle, M.: *Brucella Spondylitis*. *Am. J. Surg.* 60:130, 1943.

X-ray Report

Films taken January 17, 1942, of left femur in anteroposterior and lateral views, show definite changes in the bone structure of the head of femur. On these films there is a localized area of bone absorption or destruction in the head of the femur, which subsequent investigation demonstrated to be due to *abortus* infection. Re-study of the films at this time would suggest that the lesion is quite characteristic of undulant infection.

X-Ray Report

Films taken January 30, 1943. The examination of this patient's stereoroentgenogram shows both hip joints so that they might be compared. At present time there is very little difference between the appearance in the bone structure in these two hip joints. Apparently repair has reached a complete and stationary stage.



Fig. III

Anteroposterior view of hip approximately one year later, showing complete healing with no disability.

THE EARLY DIAGNOSIS AND TREATMENT OF PERTUSSIS

BRODA O. BARNES, M. D., and
PAT MASON

Kingman, Arizona

WHOOPING cough has become the most feared disease of infancy. Any improvement in either early diagnosis or treatment would be welcomed by both the parent and the doctor. If the experience with a virulent strain of pertussis during an epidemic in a small town can be confirmed, it would appear that we are approaching both goals.

The virulence of the strain may be judged by the fact that many youngsters previously immunized in a routine accepted manner from one to ten years previously developed the disease. In fact, the first two cases recognized were in children ten and eleven years old, respectively, and whooping cough was not suspected in them until the differential blood smear revealed the high percentage of lymphocytes. Three babies died suddenly in the local hospital undiagnosed, but a postmortem blood smear on the third revealed a leucocyte count over 50,000 with 95% lymphocytes. Subsequent events left little doubt in the author's mind that the two previous deaths, likewise, were due to pertussis.

For many years authors have agreed that there is a leucocytosis and a relative lymphocytosis during the course of pertussis. Only one publication, and that in the foreign literature, could be found indicating that this lymphocytic shift occurred early and could be used for diagnosis. Garfinkel¹ stated that the blood count was as reliable as the cough plate method. Bacteriological facilities were not available here, but our experience with the present epidemic indicates that the number of lymphocytes increases with the onset of symptoms and this increase is quite definite long before coughing begins. Daily blood and differential counts show an unproportioned rise in lymphocytes.

This observation is illustrated by the case of a six-weeks-old girl who was first seen on March 30, 1948 with a history of restlessness, vomiting, and a low grade fever for 24 hours. There were no physical findings to account for the illness. The leucocyte count was 8,700, of which 60% were lymphocytes, 16% polys, 10% stabs, 4% juveniles, 4% basophiles, and 6% monocytes. A small dose of aspirin compound was adminis-

tered every four hours. The following day the clinical condition was worse with more fever and persistent vomiting. The white count was 14,550 with 68% lymphocytes, 8% polys, 8% stabs, 6% monocytes, 5% eosinophiles, and 5% juveniles. Although one might suspect that hemoconcentration contributed to the elevated white count, almost all of the increase was due to lymphocytes. A similar rapid rise in lymphocytes was also demonstrated in other cases where daily or frequent blood counts could be obtained.

Garfinkel stated that a lymphocyte count higher than 55% was indicative of whooping cough since this was the maximum seen in a normal infant 10 days old. He found that the number of lymphocytes gradually decreased until at the age of four years the normal value was approximately 40%. Although our own control cases are few, several youngsters who had a cough, which was thought to be due to bronchitis, were checked and in none of them was the number of lymphocytes over 55%. On the other hand, 33 cases of pertussis were studied during the epidemic, and the lymphocytosis ranged from 57% to 94%. The lowest value was seen in a five-year-old child. This patient whooped, leaving no doubt of the diagnosis. The highest value (94%) was in a ten-months-old baby who was first seen in the fourth week of the disease. For the 33 cases in this series, the average was 73.8% lymphocytes.

Early in the course of the epidemic Rabbit Anti-Pertussis Serum (Wyeth) became available.* Twenty-three patients received one or two injections of 20,000 anti-endotoxin units. The results can best be observed by separating the cases into two groups, the first of which includes twelve patients who had not been immunized against pertussis.

The twelve patients who had not been immunized included four over one year of age, one ten months old, and seven under six months of age. It is in this last group that babies are so susceptible to pertussis.

Serving as controls for the treated group are four patients seen early in the epidemic who re-

* The serum was furnished by Wyeth Inc., through the courtesy of E. F. Bauer, E. V. Scott, and Dr. E. F. Roberts.

ceived only symptomatic treatment. Three of the four died, giving a mortality of 75%. The one who recovered was ten months old and was not seen until the fourth week of the disease. However, the infant lost considerable weight and the cough persisted for many weeks. Of the three patients who died, in only one was whooping cough diagnosed before death, as pointed out above.

There was only one death in the twelve cases receiving anti-serum. To be comparable to the control group, however, only eight of these were under one year of age, a mortality of 12.5%. The patient who died was a baby one month old who was not seen until the eighth day of the disease, and had a leucocyte count of 78,400 at that time. Administration of two doses of 20,000 units of anti-endotoxins 48 hours apart did not alter the course of the disease, and he died on the seventeenth day of illness.

The impression is gained from this small series that the anti-serum is highly efficacious if given during the prodromal stage of the disease. During the course of the epidemic, babies presenting the symptoms of unexplained fever and vomiting were checked daily or on alternate days with a leucocyte and differential count. If no apparent infection could be found, and if the leucocyte count was increasing with a disproportionate number of lymphocytes, the child was suspected of having pertussis. After two or three days of palliative treatment, the youngster was given 2 c.c. of anti-pertussis serum in the gluteal muscles. Within 36 hours marked clinical improvement appeared. Vomiting ceased usually within 24 hours, and the fever was either entirely gone or receding by the following day. The diagnosis might be questioned in some of the cases, but the majority of the babies had been exposed to pertussis by older children in the family.

There were no deaths among the ten patients over one year of age who had not been immunized. Four of these received anti-pertussis serum, and had prompt amelioration of symptoms similar to the infants. It is impossible, however, in these older youngsters to be sure of the efficacy of the serum on mortality. The same is true in the eleven patients who had been immunized and received serum. It is known that previous immunization may not protect the child from the disease, but the severity is modified. However, the clinical impression was ob-

tained that the serum was effective in eliminating the symptoms within 36 hours in the majority of these cases. Patients not receiving the serum continued to cough several weeks, while in only one of the twenty-three receiving anti-pertussis serum was there any lingering cough which is so characteristic of pertussis. This three-months-old infant did not receive the serum until the coughing stage had been reached.

Certainly in the present epidemic of whooping cough, an early rise in the leucocyte count with a disproportionate increase in lymphocytes was present without exception. Further research is necessary to see if this confirmation of Garfinkel's work is the usual course of events, or if it is peculiar to certain strains of pertussis. The impression has been gained that if diagnosis can be made early in the disease, anti-pertussis serum may have a definite role in therapy. Further research is needed to test the universal application of this preparation, but there is no doubt about its efficacy during the epidemic herein reported.

SUMMARY

Blood smears in thirty-three cases of pertussis revealed that there was an early leucocytosis, and a disproportionate rise in lymphocytes. This lymphocytosis was useful in diagnosing pertussis long before other characteristic signs appeared. Twenty-three patients received anti-pertussis serum (Wyeth). The impression was gained that prompt clinical improvement was obtained if the serum was given early in the course of the disease.

REFERENCE

1. Garfinkel, Max: The Value of the Differential Count in the Early Diagnosis of Whooping Cough. *South African Medical Journal*. Nov. 22, 1941, pg. 451.



PALLIATIVE THERAPY OF BENIGN HYPERTENSION WITH CALCIUM BROMINE GALACTOGLUCONATE*— PRELIMINARY CLINICAL NOTE

ARNOLD L. LIEBERMAN, Ph. D., M. D.

Tucson, Arizona

HYPERTENSION from all the statistics available is said to be the most common cause of death in the United States. Stieglitz¹ stated that hypertension is one of the greatest factors in causing disability in those between the ages of 25 and 64 year. Much research has been and is being done in an effort to determine the etiology of hypertension, but no one single factor appears decisive. No effort will be made in this brief report to discuss or to review the numerous contributions made, dealing with the mechanism of hypertension, because this has been adequately done by many competent observers.

Some comment might be made regarding the importance of the emotional factor which evidently plays a vital role in essential hypertension. Page², speaking of the psychogenesis, states that mental disturbance might produce hypertension by acting as a primary cause or by acting as a trigger mechanism. Psychotherapy was suggested, and in many instances has proven of great value, either alone or as an adjunct of medical therapy.

Bromide salts have been employed for years as a sedative, but their use is frequently limited due to untoward effects which are well known. A drug which would allay the nervous manifestations would help symptomatically, in keeping blood pressure within normal limits.

Calcibronat, calcium-bromine galactogluconate, has all of the advantages of the usual bromide salts with few, if any of their toxic properties, and the presence of the calcium ion enhances the therapeutic properties of this preparation. Calcibronat has the formula of $(C_{12}H_{21}O_{12})_2CaBr \cdot 6H_2O$, it is readily soluble in water, palatable, has a calcium ion content of 7.54 per cent, and a bromine ion content of 15.5 per cent. Calcium has an antispasmodic³ and a vasodilating effect⁴. The bromine ion acts on all portions of the nervous system, but the higher centers seem to be influenced to a greater extent. The motor area of cerebral

cortex shows lessened irritability in the response to stimuli under the influence of bromine.

In view of the multiple therapeutic measures recently advanced including Etamon, Priscol, Dibenamine and other cholinergic drugs as well as surgical procedures, including nerve block and denervation, etc., it occurred to me to analyze results of an innocuous simple office procedure which I have employed for many years in the symptomatic treatment of benign hypertension.

Tandowsky⁵ reported favorably his observations with Calcibronat (Calcium-bromine galactogluconate) in 32 patients as a palliative measure in the treatment of essential hypertension. May⁶ published his experience with Calcibronat in nine cases.

Procedure Employed: The systolic and diastolic blood pressures were recorded on all patients every week for a period of three or four weeks, in the prone and upright position, before Calcibronat therapy was instituted. The patients were first selected on the basis of presence of benign hypertension only and were first put on ordinary sedation including the use of oral Calcibronat which was found palatable in doses of one tablespoon twice daily, rest and psychotherapy, the latter when indicated. In many cases, this regime was sufficient to bring both the systolic and diastolic pressure below the danger levels. A control group of 25 cases was placed on the same regime excluding the use of Calcibronat, but the results were not nearly as significant as those patients who were on Calcibronat therapy. In cases of persistent hypertension, an intravenous injection of 10 c.c. Calcibronat was given slowly early in the morning when practical. After the flushing would subside, the blood pressure almost invariably showed an immediate drop of 10 to 50 points. Even a single injection would cause this drop to persist for several hours. If the blood pressure rose again markedly late in the afternoon, a second injection was given. By the end of 10 days to two weeks, intravenous injections were reduced to alternating days, and then twice

*Known as Calcibronat, and furnished by Sandoz Pharmaceuticals, Division of Sandoz Chemical Works, Inc.

weekly. At the end of a month, a weekly intravenous injection was given which in some cases was continued over months and years without any evidence of bromism or other toxic manifestations. This report includes 25 cases with 15 excellent results; 6 good, and 4 failures. By excellent, is meant maintenance of levels of no more than 160/100; good 190/100; and failures those cases in which the hypertension was either not altered or those in which the original level returned in spite of therapy. Those patients with excellent results also had a complete disappearance of clinical syndrome.

CASE HISTORIES

Case 1. White male, aged 60 years, who had intermittent claudication and frontal headaches. The blood pressure was 260/160; the only abnormal findings were pyorrhea and mild arteriosclerosis. He was given dental care and sedation such as triple bromides and the blood pressure leveled off at 200/120. Calcibronat was given orally and intravenously, and the blood pressure was eventually reduced to 140/80. He received weekly injections of Calcibronat for one year without toxic effects. He was able to walk six blocks without pain. Excellent results were obtained.

Case 2. White male, aged 45 years, who was an executive in a large Eastern firm. He had been advised to have either sympathectomy or to go to Arizona. The blood pressure was 280/140. He was an alcoholic and very depressed mentally. While taking triple bromides and thiocyanates, the blood pressure reduced to 220/130. He was placed on parenteral and oral Calcibronat therapy and within two weeks the blood pressure came down to 130/80. Has refused further medication, and for at least two months the blood pressure was normal. This can be considered as an excellent result.

Case 3. White male, aged 55 years, who had pulmonary emphysema, hypertension, and obesity. He had retired from a law practice. The blood pressure was well over 200 systolic when first seen, with the diastolic over 100 which persisted during treatment with the usual sedation. During two years' observation while being given oral and parenteral Calcibronat therapy, the blood pressure fluctuated around 130/80, but would become elevated during severe emotional crises to 220/110. Good result.

Case 4. White female, aged 70 years, whose blood pressure was 260/140. There were no findings to substantiate a diagnosis of malignant hypertension. While on Calcibronat oral therapy, the blood pressure came down to 160/110 but the patient refused to cooperate further. Signs of bromism developed. She was given intravenous injections of Calcibronat for two weeks with little change in the blood pressure. The blood pressure returned to the original levels. Poor result.

CONCLUSIONS

1. Calcium-bromine galactogluconate is an effective agent in the symptomatic treatment of benign hypertension, either alone or as adjunct to other therapy.
2. It appears to be more effective and less toxic than the usual bromides or barbiturates.

BIBLIOGRAPHY

1. Stieglitz, Edward J.: "Second Forty Years." J. B. Lippincott Co., Philadelphia, Penn. 1946.
2. Page, Irvine H. and Corcoran, Arthur C.: "Arterial Hypertension, Its Diagnosis and Treatment." The Year Book Publishers, Inc., Chicago, Ill. 1946.
3. Bauer, Walter; Salter, Wm. T., and Aub, Jos. C.: "Calcium Chloride in Colics." 1931 Year Book of General Therapeutics. The Year Book Publishers, Inc., Chicago, Ill.
4. Weichsel, H. S.: "Studies in Peripheral Vascular Disease. I. Intravenous Calcium in Occlusive Vascular Disease." Ann. Int. Med., 13, January 1940.
5. May, S. H.: "Alleviation of Hypertensive Symptoms." Med. Ann. of the District of Columbia, Vol. 12, July 1943.
6. Tandowsky, Ralph M.: "Synergic Effect of Calcium and Bromine in the Palliative Treatment of Essential Hypertension." Medical Record, November 20, 1940.

EFFECTIVENESS OF TREATMENT OF ALLERGIC DERMATOSES

REDFORD A. WILSON, M. D.*

Tucson, Arizona

DISCUSSION of this subject before a group such as this one seems to presuppose illustrious success in the treatment of these disorders. I am allotted ten minutes and if I stick strictly to these "illustrious successes" in my own practice, I have been allotted far too much time. I have the impression I am not alone in the difficulties caring for these patients but I

might be alone in publicly admitting it so frankly. There are probably very few here who would care to boast of their lack of failures.

The very difficulty of the problem makes it all the more imperative for us to discuss it frankly, to admit the inadequacy of our current treatment and to try to improve our procedures. I shall not make this a review of literature; by and large, we all read the same literature. I shall, however, lean heavily on a very delightful

*Read before the Southwest Allergy Forum, April, 1949, El Paso, Texas.

*Thomas-Davis Clinic.

and enlightening article by Rostenberg of Chicago.

Allergic dermatoses can include: eczematous reactions of the contact type, atopic or flexural eczemas, urticaria, drug eruptions, dermatophytids, and others.

Our study today should first be more concerned with the atopic type of sensitivity. I shall use Dr. Rostenberg's definition—"Atopy is the genetic predisposition toward the development of certain allergic states, characterized by the immediate wheal type of reaction and mediated by a particular antibody known as the Prausnitz-Kustner antibody." Very frequently this condition begins with the familiar picture of infantile eczema, which persists with varying degrees of intensity until the child is about two years of age. At that time there is often amelioration, sometimes complete and without any recurrence—but not always. The eruption continues, or it may recur intermittently later in life, as a drier, more lichenified lesion. Simultaneously with the exacerbation of skin lesions, there may occur other atopic illnesses—asthma and/or hay fever.

In the infantile type of eczema there often can be found offending allergens in the form of contactants, inhalants or foods—any one or all may be operative in any case. Occasionally, the parents can correctly identify the offender, such as exacerbation caused by a certain food or garment. Unfortunately, it is usually not so easy and it will tax the ingenuity of the best of us to determine and eliminate the cause. Skin tests may be of value and certainly are worthy of trial. Passive transfer tests are often more enlightening and accurate than direct skin tests; positive reactions obtained by this method are usually more dependable and reliable than the direct.

Our responsibility does not end with the finding of one or many positive skin reactions. As in all other allergic management, we must follow the patient to know if these positive reactions represent the actual offender, a routine too familiar to all of you to go into.

The topical treatment of these infants requires continuous and diligent care. The dermatologist is far better trained in its use than the allergist, and much more capable of using it than we are. The prevention of scratching by loose-fitting garments, curtailing the use of the hands by card-board immobilization of the elbows and,

rarely, active restriction of the hands is a fundamental part of the management.

Soothing wet dressings prove valuable when the lesions are exudative; pastes and ointments when they are drier.

Cleansing is best accomplished by the use of simple vegetable or mineral oils. Soaps are interdicted. Soapless detergents may be tried. They must be tried cautiously, however, since they may be sensitizers, and are too drying if the cleansing process lasts too long.

The infant frequently overcomes the condition at the age of about two years. If there is a recurrence, the condition is likely to be drier, with lichenification. The patient is now treated the same as an adult. Again we make every effort to identify the offending allergens. Foods are a particular suspect and every effort is made to locate the offenders. Skin tests, trial diets, Rowe's elimination diets and food diaries may be necessary before one is able to identify the offender. Ingested drugs must always be kept in mind as a possible factor in the etiology of this condition.

Here we often encounter the case in which we eliminate all the identifiable allergens, use adequate hyposensitization to those factors which cannot be eliminated but the "malady lingers on." Of course, it can be said all the offending material has not been identified and this is probably the explanation, but many patients do apparently fail to respond to what we believe is good allergic management, and it is this fact that makes us feel discouraged about allergic treatment of this condition. I quote Rostenberg again—"individuals with this disorder in a high percentage of cases (50-60) give multiple immediate wheal reactions. Occasionally, but apparently quite rarely, individuals with this disorder improve on elimination of or desensitization to the substances which yield immediate wheal reactions."

This point is, of course, crucial. He says, referring to Sulzberger, "despite the fact that he (Sulzberger) champions the atopic position of this dermatitis, he states that in general he has not been able to verify the patient's statement with regard to the actual role played by suspected factors. He has never seen and knows of no successful production of the dermatitis by exposure to these same substances during dermatitis free periods." He goes on to state, "it has been impossible regularly to effect a cure by the

removal of suspected substances." Cooke, in a study of hospital cases, found that the feeding of foods to which the patients were skin reactive never had the slightest influence on the atopic dermatitis itself. The patients who were fed the foods to which they were wheal reactive might develop asthma, urticaria, or gastro-intestinal upsets, but never the dermatitis. It would appear then that the substances to which these patients give immediate wheal reactions are not of etiologic import for the skin eruption.

The experiences of the foregoing authors are in accord with my personal experiences in the case of atopic dermatosis. By far the majority of my patients have shown multiple whealing responses to cutaneous and intracutaneous testing, but I can recall not a single one whom I was able to relieve by the application of allergic management based on the results of these skin tests. Benefit is sometimes derived from this type of management, but this benefit is not adequate to control the disease of the skin satisfactorily.

During the active course of the disease flare-ups may be induced by exposure to the antigen, and improvement may be accomplished by the elimination of the antigen, but not relief, satisfactory to the patient or to me. Because of this fact and of the experience of others cited above, I take a very pessimistic view of the effectiveness of the allergic management of atopic dermatoses. Judicious use of topical medications and x-ray therapy is required to effect adequate relief, and all too often the application of all three methods leaves much to be desired.

It is certainly questionable whether the eczematous lesions of contact dermatitis represent the same immunological factors operative in the so-called atopic dermatitis. The clinical course, the appearance, the sites of predilection are different. There is a high incidence of familial and personal history of atopic dermatitis but this is usually not true of the conditions in the patients with eczematous contact type.

The contact type merits more mention. Patch tests are often positive and give information that is useful in the care of these patients. When we are able to identify the offending agent by history and patch tests, removal of this material from the environment of the patient usually brings about a marked improvement in the lesion, and re-exposure frequently will cause an exacerbation of the condition.

After finding the offending substance, the treatment of this condition requires avoidance of this material and appropriate topical treatment. Little is accomplished by treatment by immunological methods.

Before leaving the subject of contact dermatitis and atopic dermatitis, a word should be said about anti-histaminic drugs. When these drugs were released on the market, much was anticipated with regard to the treatment of these two conditions. It did not take long, however, to learn of the disappointment that was in store. The drugs seemed to influence very little the course of the disease. They were said to alleviate the itching considerably; even this hope was not founded. There may be some alleviation of the pruritus but it is not adequate. Some of them have a very considerable sedative action and through this action they do their greatest good. The sedative action plus whatever anti-pruritic effect they may have, and plus the fact that they are less likely to be allergenic than some other sedative, often make them the sedative of choice, especially in children.

Under the subject of allergic dermatoses we must include urticaria, acute and chronic. The readiness with which the acute types disappear spontaneously makes them a much simpler problem than the chronic type. Very often the cause, and effect of the offending agent is so obvious that no concerted search is necessary. It is in urticaria that the anti-histaminic drugs have their greatest usefulness. They usually will greatly shorten the course of the acute type, and make it very much more easily tolerated by the patient. Often they will hold the chronic type under control, but it is well known that they are not curative.

In chronic urticaria we should strive to find the allergen that is responsible, assuming there is one. And we must assume there is one until we have exhausted every means of finding it. It is well known that the skin tests which react by whealing, notwithstanding the fact that the lesion of urticaria is the wheal, rarely lead to the discovery of the offending allergen in this disease. Too frequently the reactions are not positive, or even when they are, are not significant in the etiology of the urticaria. We must go on in search of focal infections, ingestion of drugs, and most certainly for some psychogenic cause for the condition.

This discussion should not be closed without

a brief mention of drug reactions. They are too many to enumerate, but the one that occupies us mostly of recent years is the reaction to penicillin and other antibiotics. They, like other drugs, can manifest themselves in a variety of conditions, but those which interest us most as allergists are the urticarial reaction and the more severe serum sickness type of reaction with its many and varied symptoms and manifestations.

The treatment for this kind of reaction, I believe, is first and foremost the use of antihistaminic drugs. They do not always control the condition but do represent the best single agent at our disposal. When these drugs do not control the reaction, we fall back on the

numerous other methods of treatment that have been used with good results often, viz: nicotinic acid, Vitamin K, intravenous alcohol, intravenous procaine (which I think is distinctly dangerous) and the others with which you are familiar.

Finally, in summary, I am sure I have added nothing new to our ideas of the efficacy of the treatment of allergic dermatoses. From the standpoint of allergic treatment I am frankly discouraged and pessimistic, and feel that our best approach is concerted effort by the allergist and dermatologist with the emphasis placed on the dermatologist.

REFERENCES

Rostenberg, Adolph, Jr.: "Cutaneous Allergic Disorders." *M. Clin. North America*, Vol. : p. . (Jan.) 1949.

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Editorials

"We Guarantee _____"

The medical profession is invested with the duty and privilege of furnishing adequate physician service to every member of the public at a price that the individual can afford to pay.

The expression "adequate physician service" is employed here instead of "adequate medical care" because the latter involves in addition to the services of physicians, nursing service, hospitalization, medication (drugs), proper housing (including modern sanitation) suitable clothing, and adequate nourishment. Supplying and distributing these goods and services is, obviously, the obligation, not only of the doctors, but of all persons employed in these fields of endeavor, and indirectly, of all public-spirited citizens.

Few if any doctors will disagree with the precept stated above, and therefore, all or nearly all will be interested in programs which have been placed in operation in several parts of the country by recognized medical organizations, programs which are designed to provide the type of service to which the public is entitled.

The Colorado Plan (the rules of which are printed elsewhere in this number of Arizona Medicine) provides a method by which the public may obtain satisfaction in its dealings with

members of the medical profession when such satisfaction has not been readily forthcoming.

The Alameda (California) County Plan is more ambitious, and aims to accomplish the following things: Furnish emergency physician service at all hours; enable the patient to budget his income and amortize his debts for physician services; help to prevent and settle malpractice claims; help the doctor collect his bills; and, in general, improve public relations.

In the final analysis both plans aim to assure the public of adequate and proper physician service at a reasonable cost to the patient. The Alameda Plan, it seems, is better in that it attempts to insure these aims in advance and avoid unpleasant relations between the public and the medical profession, whereas the Colorado Plan merely attempts to straighten out unhappy situations after they have been created. Both plans offer the public something it has not always had—good physician service; and both plans offer the medical profession something it has not always had—good public relations.

Other plans have appeared; still others will appear. One may read about the Colorado Plan in this journal, and about the Alameda Plan in the December, 1949, issue of the Woman's Home Companion. Every member of organized medicine should consider this matter thoroughly and be prepared to cooperate to help improve the standard of physician service in Arizona.

Some day then, the medical organizations of this state may be able to state freely in public announcements:

"WE GUARANTEE TO DELIVER TO EVERYONE THE PHYSICIAN SERVICE HE NEEDS WHEN HE NEEDS IT, AT A PRICE HE CAN AFFORD TO PAY."

Annual Dues - American Medical Association

To the Secretaries of the Constituent
State and Territorial Medical As-
sociations:—

The House of Delegates of the American Medical Association at its meeting in Washington, D. C., December 6 to 8, 1949, adopted amendments to the By-Laws of the American Medical Association whereby Division One, Chapter II, Tenure of Membership, has been changed to read as follows:

CHAPTER II

Tenure and Obligations of Membership; Dues

Section 1.—When the Secretary is officially informed that a member is not in good standing in his component society, he shall remove the name of said member from the membership roll. A member shall hold his membership through the constituent association in the jurisdiction of which he practices. Should he remove his practice to another jurisdiction, he shall apply for membership through the constituent association in the jurisdiction to which he has moved his practice. Unless he has transferred his membership within six months after such change of practice, the Secretary shall remove his name from the roster of members.

Sec. 2.—Annual dues, not to exceed \$25.00, may be prescribed for the ensuing calendar year in an amount recommended by the Board of Trustees and approved by the House of Delegates. Each active member shall pay said annual dues to his constituent association for transmittal to the Secretary of the American Medical Association.

An active member who is delinquent in the payment of such dues for one year shall forfeit his active membership in the American Medical Association if he fails to pay the delinquent dues within thirty days after notice of his delinquency has been mailed by the Secretary of the American Medical Association to his last known address.

Any former member who has forfeited his membership because of being delinquent in payment of dues may be re-instated on payment of his indebtedness.

You will note that the following important changes have been made:

(A) The word "Dues" has been added to the title of Chapter II.

(B) Chapter II has been divided into two sections.

(C) The first sentence of Chapter II, which read, "Membership in this Association shall continue as long as a physician is a member of a component society of the constituent association through which he holds membership," has been deleted.

(D) The words "of the American Medical Association" have been added after the word "Secretary" where clarification is necessary.

(E) The sentence, "An active member shall pay dues or assessments as may be prescribed by the Constitution or By-Laws," has been deleted.

(F) The words "in the American Medical Association" have been added after the words "shall forfeit his active membership" in the second paragraph of Section 2.

(G) The sentence forming the third paragraph of Section 2, with regard to reinstatement, is a new addition to Chapter II.

(H) A new paragraph, forming the first paragraph of Section 2, providing for annual dues not to exceed \$25.00 has been added to Chapter II.

THE HOUSE OF DELEGATES, ON RECOMMENDATION OF THE BOARD OF TRUSTEES, SET THE MEMBERSHIP DUES FOR THE YEAR 1950 AT \$25.00.

The full effect of the new provisions will have to be studied and developed during the next year. However, the following interpretations of the amended By-Laws are offered for your guidance at this time:

(a) Active membership in the American Medical Association will continue to be limited to those members of constituent associations who (1) hold the degree of Doctor of Medicine or Bachelor of Medicine, and (2) are entitled to exercise the rights of active membership in their constituent associations as provided in Article 5 of the Constitution of the American Medical Association.

(b) A member of the American Medical Association shall lose his membership in the Association when the Secretary of the American Medical Association is officially informed that a member is not in good standing in his component society **or is delinquent in the payment of the American Medical Association dues established by the above change in the By-Laws.**

(c) Forfeiture of membership in the American Medical Association due to failure to pay dues will have no effect on membership in the component or constituent medical societies unless the component or constituent societies amend their respective constitutions and by-laws. It is, therefore, possible that a physician may be a member of his component and constituent societies and at the same time not be a member of the American Medical Association.

(d) The amended By-Laws provide for the collection of the American Medical Association membership dues by the constituent associations for transmittal to the Secretary of the American Medical Association. The detailed method to be adopted by each constituent association will vary in each state. In general, the method utilized by each state for the collection of its own component and constituent association dues should be followed.

Some of the problems involved in the collection and transmittal of dues will be considered in a later communication to you.

It is planned to provide each member of the American Medical Association a membership card and certificate of membership when his dues are paid.

It will be necessary for the Secretary of the American Medical Association to notify those members who are delinquent in the payment of

their dues, and this office will, therefore, require a complete list of all active dues paying members.

No changes have been made in the Constitution and By-Laws of the American Medical Association with respect to Fellowship. Eligibility for Fellowship and annual Fellowship dues of \$12.00 remain the same. Under the present By-Laws a Fellow will pay for the year 1950 total membership and Fellowship dues of \$37.00.

The following members may be exempted from the payment of the \$25.00 American Medical Association membership dues: retired members; members who are physically disabled; interns, and those members for whom the payment of such dues would constitute a financial hardship.

No member should be exempted from the payment of his American Medical Association dues who is not exempted from his component and constituent society dues.

George F. Lull, M. D.

The Hermosillo Meeting

On December 2 and 3 for the second consecutive year the Medical Society of Hermosillo, Mexico, entertained the Maricopa County Medical Society. The Maricopa County Medical Society reciprocated last May and will return the invitation again this coming spring.

Hermosillo is a thriving Mexican city of 60,000 people with 40 doctors. It is one hundred and eighty miles south of the United States-Mexico boundary line at Nogales. There is a paved road the entire distance. The first sixty miles of the road south of Nogales winds through a low mountainous country which is unusually picturesque. There are numerous small cultivated areas consisting of citrus, corn, cotton, alfalfa and small grains. After this the road enters a strip of desert and is as straight as the eye can see, with only an occasional bend, and there are no speed limits. It is lined on both sides by an unusually dense desert vegetation. The last seventy miles is a continuous forest of organ-pipe cactus. Hermosillo itself is a very beautiful city at this time of the year with poinsettias and bougainvillea in bloom, as well as the many trees which are seen in a semi-tropical climate. Many of the buildings are of old Spanish architecture, but there are numerous new structures of the most modern design and not a few very beautiful large new homes. Being the Capital of the State of Sonora, the govern-

ment buildings are particularly massive and impressive.

The Medical Society arranged surgical clinics on the forenoons of both days and a scientific meeting the first evening. Our Mexican neighbors excel in entertainment and hospitality. After the scientific meeting of the first evening, Dr. Ignacio Cadena, entertained the entire group at his spacious residence.

A barbecue picnic was held in one of the many parks on the afternoon of the second day and on the last night the entertainment was in the city casino.

The number of Maricopa physicians who availed themselves of this interesting and enjoyable trip was altogether too small.

It is an established fact now that the only international meeting that can be held any place in the world today, in which dissension does not prevail, is a medical meeting. This Maricopa County-Hermosillo meeting is an excellent way to demonstrate the good neighbor policy with our friends across the Rio Grande. So let us hope that if this invitation is repeated next year, a larger representation from Maricopa County will attend.

Mr. Ewing's Approach . . . "An Appeal to the Pocketbook"

There is ample evidence that a majority of physicians believe that status quo in medical practice is neither possible nor desirable. While they are unalterably opposed to compulsory health insurance, they have supported changes proposed by their leaders in an effort to make medical care more readily available to the people at a cost within their means. Some may not have been too enthusiastic about the proposals adopted, but at least they have done what was asked of them.

By far the greatest number of physicians have had little patience with combative die-hards who oppose any change. They resent deeply those within their ranks who stir up controversy by appeals to prejudice. They look with disfavor upon their colleagues who resort to questionable tactics in opposing a Government system of medical care. But their displeasure is equally visited upon public officials who resort to the same methods.

Oscar R. Ewing, Federal Security Administrator, although vocal on the subject, has on occasions revealed a sad lack of knowledge about

health matters. He has not been above frankly appealing to prejudice in an effort to gain support for the Administration's health insurance program. On occasion his Wall Street background comes to the fore. He is again the business man driving a bargain.

An example of the latter were statements made by him in an address before the National Association of Retail Druggists last September. As usual, he had nothing good to say for the American Medical Association. That was to be expected because he and the A.M.A. have been "feudin'" for some time now. What surprised your Observer was not Mr. Ewing's bid for NARD support of the Administration's health insurance scheme, but that his appeal was based on increased profits for druggists.

Listen to this!

"... the President's health program is not simply a series of isolated recommendations. It is a carefully formulated plan of operation for which all the constituent elements are essential if the plan is to click. National health insurance and the distribution of medical purchasing power is a very important element. It is the animating factor which gives life and vitality to the whole project.

"In all this I do not see how the retail druggist can fail to profit enormously. As to your own status under National health insurance, there is nothing which would in any way disturb your present method of doing business. You are, of course, aware that only the unusually expensive drugs and medicines—those not ordinarily handled over most drug counters—would be paid for out of the National insurance fund. For the rest, you would have exactly the same cash register relationship with your customers that you do now.

"But that relationship, it seems to me, should be a very happy one. With literally millions of additional patients seeking out doctors for medical advice, your volume in drugs and medicines should show a corresponding gain. Certainly, the more patients there are seeking medical advice, the more customers there will be handing their prescriptions across your counters. And certainly there is no reason to suppose that, for their minor ills, the American people will give up their well entrenched habits of relying on tested and useful proprietary remedies. My own guess is that in such an expanded market you will sell more aspirin and more mineral oil.

"Beyond this, your customers as a whole will have relatively more money to spend for drugs and medicines than they do now. And this is something I think most of you gentlemen may have overlooked. In the event of an illness, all doctors' and hospital bills will be met out of the insurance fund. No patient will have to worry about these expenses. For that reason, the cost of ordinary drugs and medicines will present much less of a problem to the average pocketbook. In fact, it would be the only medical cost that would require outright money in hand. As a consequence, there would be far less tendency to economize on drugs than if it represented only one of the many and heavy expenses of a serious illness. And for your purposes, gentlemen, that should be all to the good."

The druggists were not taken in by the Federal Security Administrator's promises. Mr. Robert L. Lund, President of the St. Louis College of Pharmacy, called it "an appeal to the pocketbook rather than to principle," which it certainly was.

Reprinted from "In and Out of Focus—Observer," Medical Annals of the District of Columbia.

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Arizona Medical Problems

CONSULTATION AND CASE ANALYSIS

ARIZONA MEDICINE again presents an unsolved and difficult case from the practice of Arizona physicians, with the Case-Analysis and comments of a specially-chosen and nationally-known Consultant.

Any physician who has an undiagnosed case which has defied other methods of solution may send it for consideration. The case should be completely worked up, but an editor will help compose the report. Whenever the need for an answer is urgent, the Consultant's reply will be sent direct to the submitting physician, before publication.

Please send communications and data to Dr. W. H. Oatway, Jr., 123 S. Stone Avenue, Tucson, Arizona, or care of The Editor, Arizona Medicine.

The current case is, without any quibbling, not only difficult but tricky. It is an assignment in medical gymnastics. It is, furthermore, a problem with a solution which will be supplied, most properly, at the end of this section.

The CONSULTANT for the case is Dr. Stanley R. Edwards, a physician in private practice in Los Angeles, a member of the staffs of several hospitals in that city, and an instructor in medicine at the University of Southern California.

Dr. Edwards represents the type of physician who might see a patient such as will be described, and who is perfectly qualified to make a fast, accurate analysis of the case. He received his M. D. from the University of Wisconsin, took an internship at the Medical College of Virginia at Richmond, and then had a four year residency in internal medicine at the Wisconsin General Hospital. He has written medical reports on esoteric subjects, and among his professional connections is membership in the American College of Physicians.

CASE NUMBER XXII

The patient is a white woman, 32 years of age. She was a native of Texas, has lived in numerous states as the wife of an army officer, and came to Arizona several weeks ago because of the climate.

The patient has had a known bronchiectasis for many years, and a brother is said to have a similar condition. About a year ago the lower lobe of her right lung was removed at an eastern army hospital, and she recovered slowly, due to an infection of the chest wall. She is not sure if all of the diseased tissue was removed on the

right, but said that the doctors suspect bronchiectasis of a lesser degree at the left base.

She called a physician for the first time in Arizona because of a 'cold' which had not cleared, and a severe headache which had been present for 24 hours. She was in bed, and appeared quite ill and uncomfortable. She had a fever of 101 degrees, complained of abdominal distress, and had vomited twice in the preceding two hours. There was an occasional chuckly cough, and a pint jar was half-full of a muco-purulent sputum—her recent average expectoration for a day. The headache was generalized, and had not responded to aspirin or empirin compound. She had been given an enema with fair results.

At bedside examination, her color was pallid and her skin was moist. Her respirations were 24 per minute, and regular, and the pulse was regular at 104 per minute. The special senses were normal, the reflexes were all slightly hyperactive, there was general tenderness to light percussion on the head and posterior cervical area, but the neck was not stiff. The breath sounds over the right lung were distant and there were no rales; on the left side there were intermittent coarse moist rales at the base, which cleared on the raising of secretions. The abdomen was slightly tender throughout, and there were some tympanites, but there was nothing unusual or suggestive in the findings.

The patient then recalled that about 7 or 8 weeks previously she had been ill, had seen a gynecologist, and he had been puzzled by "a lower abdominal condition" (accompanied by malaise and headache). He had given her a "sulfa drug", and warned her to come back; she took the pills for a few days, felt better, and did not return because of personal affairs. The story could not be clarified further.

The impressions included bronchiectasis of the left lung base, post-lobectomy pleural thickening on the right, dehydration and undernutrition, and an acute respiratory infection. A central nervous system lesion could not be ruled out.

It was decided to start sulfa-diazine by mouth at once, with alkalis and fluids as tolerated. A nurse was obtained to help and observe the progress overnight. Codeine and an ice-cap were used for the headache.

At 7 A. M. the next morning a report was telephoned that the temperature was 102 degrees, she had failed to keep most of the medication down, the headache was unchanged, and she had become slightly deaf in the left ear.

The patient was immediately sent by ambulance to the hospital, where she could be examined and treated more quickly and carefully.

QUESTIONS:

1. What is the most probable diagnosis?
2. What diagnostic measures should be attempted first?
3. Could you suggest a plan of therapy?
4. Is the episode of two months previous of any significance?

• • • M. D., Tucson.

ANALYSIS AND ANSWERS:—

1. *What is the most probable diagnosis?*

Brain abscess is the most likely possibility, in view of the past and present bronchiectasis.

A *mycotic infection* of the lung, such as *torulosis*, *histoplasmosis*, or *coccidiosis*, and transmitted to the brain, is also a possibility.

Bronchiectasis is frequently accompanied by severe sinusitis, and is likely to flare up with a "cold", so one would think of a severe *sphenoidal sinusitis*; a frontal sinusitis with erosion of bone should give more localization of pain in the face or forehead and more meningeal signs.

Another diagnosis which must be considered, especially in view of the warning that the case is a tricky one, is an entity not connected with her past ills—an *infectious meningitis*, such as that caused by the *meningococcus* or *pneumococcus*. A meningitis caused by *tuberculosis* or some other systemic disease is not impossible.

2. *What diagnostic measures should be attempted first?*

A *white blood cell and differential count* may be done to quickly differentiate the pyogenic from the non-pyogenic infecting agents.

A *spinal tap* should be done at once. Direct smears may indicate the causative organism. Cultures should also be made, and the media might include Sabouraud's for the mold-fungi group, and tryptose broth under CO₂ for *brucella* if the smear is not diagnostic.

A *blood culture* would seem to be indicated for diagnosis, and to guide therapy in case of a bacteremia.

These tests could be completed soon after the patient was admitted to the hospital. The next reasonable diagnostic step would be to *repeat the questions* so that a better delineation of the symptom sequence might be obtained. Oft times, by casting the net again, the diagnosis may be caught up.

3. *Could you suggest a plan of therapy?*

Since this patient seems acutely ill with a serious condition apparently due to an infec-

tion, it would be logical to attempt to combat the infection either with large doses of one of the sulfa drugs or a combination of anti-biotics in adequate doses as soon as the spinal tap and blood culture is obtained.

At the present time, a combination of penicillin and streptomycin would be quickest and the method of choice. As we know more about them, Aureomycin or Chloromycetin may offer an advantage.

This blanket type of therapy should *not* be begun, however, until specimens for the diagnostic procedures have been obtained.

The specific treatment for the condition will depend upon what diagnosis is established. If it is a brain abscess, it will require the service of a neurosurgeon. Certain types of meningitis would require a shift in drugs from the "shot-gun" to the "rifle." Meningococcal infections still respond well to the sulfonamides.

4. *Is the episode of two months previous of any significance?*

It might be. The previous illness could have been unconnected with the present episode, or it might have been the early manifestations of an infection which was temporarily aborted. Such a situation has been reported, with as many as five meningeal recurrences of meningococcal or pneumococcal infections.

A disease occurring in a woman who had been traveling from place to place, which was characterized by severe malaise, abdominal pains, and vague abdominal findings, which responded temporarily to sulfadiazine but recurred in the brain, might be *brucellosis*. And *brucellosis* becomes at least a suspected condition. The diagnostic tests and the early therapy should determine the point.

Stanley R. Edwards, M. D.,
676 S. Westlake Avenue,
Los Angeles, 6, California.

• • •

(The *actual diagnosis* which was made by a smear, and later culture, from the spinal fluid was *meningococcal meningitis*. It was coincidental to the patient's lung disease, which simply confused the diagnostic view. It was later learned that a neighbor child had also had the disease a week or so previous, and that the patient's child had a diplococcus in the throat which disappeared after treatment with sulfadiazine. The patient recovered in a few days after treatment with intravenous sulfadiazine.—The Editor.)

PHOENIX CLINICAL CLUB

Massachusetts General Hospital

Case Record No. 33221

First admission: A forty-two-year-old housewife entered the hospital because of vaginal bleeding.

The patient had been in excellent health until six months before entry, when she had first noticed slight generalized weakness and easy fatigability. Three months later an unusually prolonged and profuse period had occurred, and she had subsequently had some intermittent intermenstrual bleeding associated with abdominal cramps, gradually increasing in severity. She had also had occasional hot flashes. During the next to the last period, which occurred four weeks before entry, she used ten to fifteen napkins a day and passed some blood clots. Abdominal cramps were again severe, and she had one episode of "cold sweats" and fainting. Since then she bled almost every other day, requiring as many as ten napkins a day. Six days before entry she began to bleed constantly, passing some small clots, and on the day before entry she passed a clot the size of a fist. During the three days before entry she occasionally had chilly sensations and fainted several times. There had been no pain or headaches.

The patient had begun to menstruate at the age of sixteen years, and until the present illness the periods had always been regular, occurring every twenty-six to twenty-eight days and lasting for five or six days. They had always been somewhat profuse. She had had six children, the eldest of whom was twenty-six years and the youngest fourteen years of age. In the two months before entry she had lost about 10 pounds. She had not had intercourse for eight months before entry.

Physical examination revealed a pale, somewhat obese woman. The heart, lungs, and abdomen were normal. There was a slight cystocele and first-degree procidentia. There was a bloody discharge from the cervix. The uterus was about twice the normal size and in third-degree retroversion.

The temperature, pulse and respirations were normal. The blood pressure was 130 systolic, 70 diastolic.

Examination of the blood disclosed a red-cell count of 3,300,000 with 12.0 gm. of hemoglobin, and a white-cell count of 5400 with 60 per cent neutrophils. A blood Hinton test was negative. The urine was normal.

On the third hospital day a total hysterectomy was performed. The cervix was bilaterally ulcerated and contained some small Nabothian cysts. The uterus measured 10 by 4 by 3 cm., and the myometrium was studded with firm yellowish-orange nodules, 1 or 2 mm. in diameter. The endometrium was reddish orange and 1 mm.

thick except at the fundus, where a 1.5 cm. polypoid mass was present. The pathological diagnosis was neurofibromas of the myometrium. The patient recovered uneventfully and was discharged on the seventeenth hospital day.

Second admission (two years later): Following discharge the patient continued to complain of weakness. She also had slight stress incontinence, which was the presenting complaint. The weight had increased from 149 pounds at the time of the first admission to 158 pounds.

The physical findings were essentially unchanged. The hemoglobin was 15.0 gm., and the white-cell count 5400. The urine was normal.

On the fourth hospital day an interior colporrhaphy and a perineorrhaphy were performed. The postoperative course was uneventful, and the patient was discharged on the fifteenth hospital day.

Third admission (fourteen months later): For several months after the operation the patient was well and continent of urine. Then, slight incontinence returned. Also, she continued to suffer from weakness and fatigue. Iron pills prescribed by a physician were of no avail. For ten months she had had occasional attacks of nausea and cramps in the "pit of the stomach." These episodes usually came within thirty minutes to an hour following a meal. She had no intolerance to fatty foods. She also complained of increasing constipation and frequent hot flashes and jittery spells lasting about fifteen minutes at a time. She had lost about ten pounds in weight despite progressive enlargement of the abdomen for several months.

On physical examination the patient appeared chronically ill. The lungs were clear. The abdomen was protuberant and tympanitic. Peristalsis was active. A large, poorly defined, somewhat moveable, hard, slightly tender mass filled most of the right lower and middle portions of the abdomen. It was ovoid in shape, with its long axis parallel to the long axis of the body, arose in the pelvis and extended to the umbilicus. A smaller cystic mass was felt in the left pelvis, and there was a mass dissecting down between the rectum and the vagina.

The temperature was 102.5°F., the pulse 120, and the respirations 25. The blood pressure was 120 systolic, 75 diastolic.

Examination of the blood revealed a hemoglobin of 11.2 gm. and a white-cell count of 15,500 with 89 per cent neutrophils. The non-protein nitrogen was 25 mg. and the serum protein 6.7 gm. per 100 c.c.

The urine gave a two plus test for albumin. The sediment from a catheterized specimen contained 3 red cells and 20 white cells per high

power field. Cultures showed abundant colonies of colon bacilli.

X-ray examination disclosed an area of horizontal linear density in the left lower-lung field. There were a number of rounded, calcified areas with centers of decreased density in the right upper quadrant of the abdomen. A rounded calcified mass, 3 cm. in diameter, was present in the left upper quadrant. The kidneys appeared normal in position and size, the right being slightly larger than the left. Both excreted intravenous dye promptly, and the urinary passages on the left appeared normal. There was a marked accumulation of the dye in the right kidney two hours after injection and moderate dilatation of the right pelvis, calyces and upper right ureter. Both ureters were displaced laterally by what appeared to be a lobulated mass about 13 cm. in diameter in the midpelvis. This compressed the upper border of the bladder. A second, rounded mass about 11 cm. in diameter was lying over the upper border of the sacrum on the right. These masses were rather sharply defined, smooth and free of calcification. A barium enema showed no evidence of intrinsic bowel disease.

On the sixth hospital day an operation was performed.

DISCUSSION

Dr. Robert S. Flinn:

Six months before entry to the hospital this patient began to be weak. Three months later she had a profuse but apparently regular monthly period following which intermenstrual bleeding began. On admission to the hospital her uterus was found to be twice the normal size with third degree retroversion. At the time of operation the myometrium was studded with firm, yellowish orange nodules, one or two millimeters in diameter. A polypoid mass was present at the fundus.

Three years and two months later the patient continued to suffer from weakness and fatigue. A large, poorly defined, movable, hard, slightly tender mass filled most of the right lower and middle portions of the abdomen. A small cystic mass was felt in the left pelvis and there was a mass dissecting down between the rectum and the vagina. On the sixth hospital day an operation was performed and we are supposed to guess what was found at operation.

Although there are many conditions arising in the uterus and ovaries which might produce these masses, such as carcinoma of the body of the uterus; epidermoid carcinoma and adenocarcinoma of the cervix; benign and malignant cyst of the ovaries and inflammatory cysts, in-

cluding ovarian abscess and tuberculous abscess, it appears that the diagnosis rests between chorionepithelioma and endometriosis. Chorionepithelioma is a rare malignant disease which occurs in women over 40 years of age and is accompanied by irregular uterine bleeding. Hydatidiform moles frequently precede the development of chorionepithelioma. While it is said to always immediately be preceded by pregnancy, it has been found to arise months or even years after a full term labor; an abortion or an ectopic pregnancy. In rare cases, a chorionepithelioma may disappear spontaneously without treatment. However, these occurrences are exceedingly rare and usually the tumor is so virulent that unless treatment is instituted, most patients die within one year from the time the symptoms are observed.

In the patient under discussion, no pregnancy preceded this bleeding for some time, since the youngest child was 14 and there is no history of any abortion or miscarriage. The fact that the patient is alive at the end of three years and a half is also evidence against chorionepithelioma so we must reluctantly discard this as a possible diagnosis. This leaves us with endometriosis and I am inclined to hazard a guess that this is the diagnosis based not only on the history but especially on the description of firm, yellowish, orange nodules in the myometrium which were diagnosed as sarcoma.

The development of our knowledge concerning misplaced endometrial tissue and the nature of perforating hemorrhagic cyst of the ovary constitutes a fascinating chapter in modern gynecology.

W. W. Russel was the first to discover endometrium in the human ovary. Nine years later Cohen published his investigations in which he cited numerous instances in which uterine epithelium had been found deep in the uterine wall. In 1921 Sampson announced that the endometrium was found in the ovary quite commonly, that well known perforating chocolate cyst of the ovary were often really of endometrial origin and that the endometrial masses in other situations could be derived from the ovary by rupture of the endometrial or chocolate cyst. These cysts exhibit periodic histologic menstrual phenomena, show decidual reaction during pregnancy, are subject to malignant metaplasia and regress after the cessation of ovarian function either by surgery or the meno-

pause. Casler, for example, reported a case of a woman who insisted that she continued to menstruate after he had removed the uterus. He told the woman that she must be mistaken but retracted this statement when he found that she was actually menstruating from endometrial tissue in an ovary which he had conservatively left behind at the first operation. The demonstration that many chocolate cysts of the ovary are endometrial explains possibly the source of some of the endometrial growths that are found in various other parts of the pelvis.

In advanced cases of ovarian endometriosis, one usually finds endometrial implants in situations which are very difficult to attack surgically. This is particularly true of nodules high in the sigmoid; the rectovaginal septum; the cervix; the uterosacral ligaments and the bladder. The effort to remove these growths would enormously increase the gravity of the operation and open a way for all manner of post-operative complications. Furthermore, since these conditions are benign and since their activity is entirely dependent upon the stimulus of ovarian tissue, no effort is made to extirpate them when the procedure entails notable complications or risks. In such cases, the complete removal of the ovaries almost invariably reduces such ectopic endometrial tissue to a state of complete inactivity.

In 1943 James R. Goodall of McGill published a classic study on endometriosis and divides endometriosis of the uterus into the mixed and stromatous types. The endometrial overgrowth is generally composed of both the glandular and stromatous constituents of the endometrium in normal relations but these two elements often lose their normal relative proportions and at times we may find such endometrial hyperplasia made up chiefly of glandular elements with a minimum of stroma, while in other cases are grossly made up wholly of stroma cells. When cuttings made from the stromatous endometriosis are sent for a diagnosis, the absence of glands almost invariably suggests the diagnosis of sarcoma. Goodall describes two cases of acute stromatous endometriosis with restricted malignant in character. One patient, a 57 year old woman, was operated upon for a fibroid. A diagnosis of sarcoma of the uterus was made. Two years later, the pelvis was filled with a new growth. The patient was treated with x-ray therapy and remained well for approximately eight

years. Microscopic study of sections from all parts of the body revealed endometrial metastasis including metastasis to the lung.

In conclusion it seems to me that if we are to accept the pathologist's diagnosis of a condition resembling a sarcoma at the time of operation and since stromal endometriosis has not infrequently been confounded with sarcoma, and since the symptoms of weakness, fatigue, irregular bleeding and multiple abdominal masses so closely fit a diagnosis of endometriosis, I am forced to make such a diagnosis and suggest that it is a stromatous type of endometriosis perhaps with malignant characteristics and that the lesions in the lung were probably due to metastatic endometriosis.

Dr. Paul A. Younge: On the first admission the patient had a cystocele and a first-degree procidentia. There is often confusion between the terms "prolapse" and "procidentia" of the uterus. Procidentia, as we use the term, means that the uterus is outside the introitus.

Dr. Francis M. Ingersoll: I should say that the uterus was moderately prolapsed; it just came down to the introitus.

Dr. Joe V. Meigs: Then this was not a procidentia.

Dr. Younge: I should say, a second-degree prolapse.

Symptoms of cramps with flowing usually mean a definite intrauterine lesion such as pedunculated fibroid or pedunculated adenomyoma. Occasionally, with dysfunctional flowing, large clots are passed in association with cramps, but there is not so much intermenstrual bleeding as this patient had. From the history, I think that she had a submucous pedunculated tumor. Another lesion that could cause the symptoms is a carcinoma of the cervix obstructing the cervical canal. This results in pain and intermenstrual bleeding that is perhaps not so profuse as that in the case under discussion. I assume that dilatation and curettage were not done beforehand, since no mention is made of such procedures.

The uterus that was removed is described as measuring 10 by 4 by 3 cm.; that fact fails to substantiate the clinical finding of a uterus twice the normal size because the measurements are those of a normal or somewhat small uterus. There was a small intrauterine tumor, which may have caused the symptoms of cramps and bleeding. The gross description sounds like an

endometrial polyp, and I am mystified by the pathological diagnosis of neurofibroma of the myometrium. That is a completely new lesion of the uterus as far as I am concerned, and I do not know its significance. It is possible that it was a part of a generalized neurofibromatosis, but there is no confirmatory evidence for such a hypothesis in the history or the physical examination. I also fail to understand why at the first operation nothing was done about the relaxed pelvic floor.

On the third admission the outstanding symptoms were loss of weight, general debility and cramps and nausea after eating. Physical examination disclosed bi-lateral pelvic masses, one of which extended up into the abdomen. The intravenous pyelogram demonstrated ureteral obstruction on the right. The pelvic tumor that most frequently causes obstruction in the urinary tract is carcinoma of the cervix, and I have considered that diagnosis seriously in spite of the description of the cervix at the time of hysterectomy. The ovaries were not removed at the first operation, and bilateral pelvic tumors and gastrointestinal symptoms such as she had make one think of a Krukenberg tumor. The ovaries may have developed a primary malignant tumor, but carcinoma of the ovary seldom causes ureteral obstruction. The patient must have had an infiltrating tumor in the broad ligament obstructing the ureter, and we know she had an infiltration of the recto-vaginal septum. This again makes one think of carcinoma of the cervix, but since that is apparently ruled out, my diagnosis is a Krukenberg tumor of the ovary, bilateral, with metastases in the pelvis causing ureteral obstruction and hydronephrosis. She also had gallstones. I am not certain what to say about the x-ray findings of the lungs—they may have been due to a thick interlobar septum and were probably not due to cancer.

Dr. Stanley Wyman: The area of linear density lies in the left lower-lung field just above the diaphragm. There may be some collapse of the lower lobe. I think of atelectasis. This plain film of the abdomen, taken on the same day, shows a rounded mass. A second overlying shadow is faintly discernible at this point, and a third round mass overlaps, with some gas apparently flowing around it. The small areas of calcified ring-like density that are seen in the right upper quadrant conform to the configuration of the expected site of the gallbladder. This is the mass

of round calcification seen on the left. After the intravenous introduction of dye, the first film shows delay in excretion by the right kidney, presumably due to the obstructed ureter. The film taken two hours after the introduction of dye shows considerable dye remaining in the upper urinary tract on the right. The barium in the small intestine outlines the soft-tissue mass.

Dr. Younge: I did not realize that there were three pelvic masses.

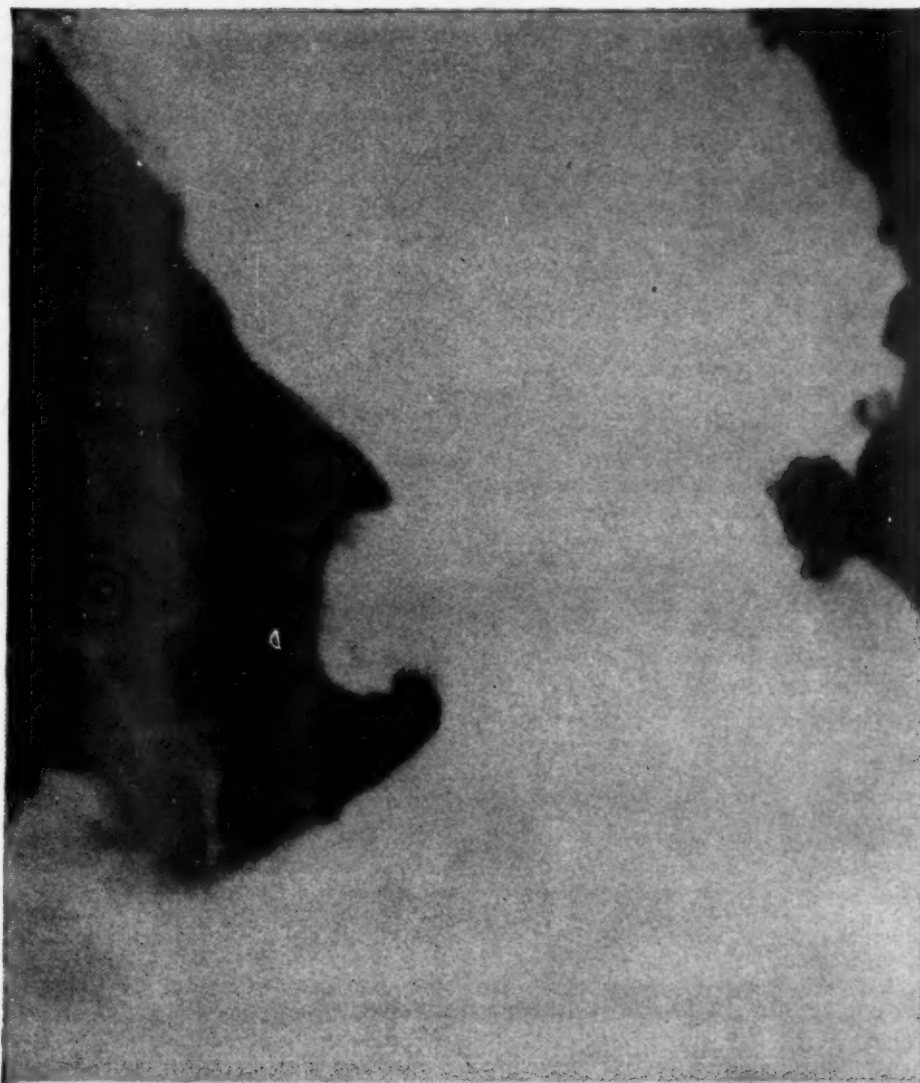
Dr. Wyman: I do not know whether there are three or whether it is one lobulated mass.

Dr. Younge: Since one of the original lesions was a neurofibroma, I suppose that one should consider neurofibrosarcoma. But I know nothing about that. I do not know what to expect benign uterine neurofibromas to be accompanied by or followed by, and I shall omit that as a possibility and stick to the diagnosis of Krukenberg tumor.

Dr. Tracy B. Mallory: The diagnosis of neurofibromatosis of the uterus was made during my absence from the laboratory, and I disclaim responsibility. I do not wonder that the pathologist was puzzled by the sections. This is from the polypoid tumor in the uterine cavity and shows a few widely dispersed endometrial glands separated by exceptionally abundant endometrial stroma. In this stroma were numerous whorls of exceptional cellularity. Similar masses of small spindle cells, also with a tendency to whorl formation, invaded deeply into the myometrium. The pattern resembles that seen in tumors arising from nerve sheaths, but I do not believe that I should have made that diagnosis. I seriously considered the possibility of a granulosa-cell tumor primary in the ovary, but the apparent normality of the ovaries at the first operation made this extremely improbable. I finally decided that an endometrial sarcoma was the best diagnosis.

Dr. Younge: Could you exclude leiomyosarcoma or cellular leiomyoma? We have had a recent case of so-called "cellular Leiomyoma" in which the patient is dying of metastatic sarcoma. The lesion in the case under discussion may have been a sarcoma.

Dr. Mallory: I believe that one can rule out leiomyoma or leiomyosarcoma, since these cells are tiny spindle cells, much smaller than muscle cells.



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SEARLE RESEARCH IN THE SERVICE OF MEDICINE

CLINICAL DIAGNOSIS

Carcinoma of the ovary?

DR. YOUNGE'S DIAGNOSIS

Krukenberg tumor of the ovary.

ANATOMICAL DIAGNOSIS

Endometrial sarcoma?

Stroma endometriosis (endolymphatic fibromyosis of Frank)?

PATHOLOGICAL DISCUSSION

Dr. Mallory: Dr. Ingersoll, will you tell what you found at operation?

Dr. Ingersoll: At operation the lower half of the abdomen was studded with a polypoid type of tumor that had infiltrated the omentum and was adherent to the abdominal wall. In the pelvis there were other masses of a similar type of tumor. It was not like any tumor that I had seen before. The omentum and other tissues seemed to be studded with smooth, round masses of varying size. We resected the omentum but were unable to remove the tumor in the pelvis.

Dr. Meigs: Did you remove the ovaries?

Dr. Ingersoll: No; the small bowel, the large bowel and everything else were adherent in the pelvis.

Dr. Meigs: I bring up that point for later discussion in connection with the treatment. It may be important. You did not consciously remove the ovaries?

Dr. Ingersoll: No.

Dr. Mallory: The Pathology Department worried over the diagnosis of this case once more for several weeks after the third operation. The probable clue to it, I think, was found, not in the original sections of the uterus, but in the new tumor growth of the omentum. This presented a peculiar appearance—multiple nodules of varying size, some less than a millimeter in diameter, of a small, spindle-cell neoplasm, which was projecting into and growing in the lumen of spaces lined with endothelium that seemed to be tremendously dilated lymphatic vessels. The tumor corresponds entirely in its histologic appearance to a group of lesions that were reported some years ago by Frank¹ at the Mount Sinai Hospital under the title of "endolymphatic fibromyosis of the uterus." The same tumor has unquestionably been called by other names. I am quite sure that it has been referred to at times as stromal endometriosis, and in certain respects it suggests that condition. We have had

a case in the old records of the hospital that Dr. Meigs² studied some years ago and illustrated in his book. I suggest that he say something about it.

Dr. Meigs: When I ran across this tumor in going over the histologic sections in the laboratory, I called it a "leiomyosarcoma invading a fibroid." Dr. Goodall³ and later Dr. James Miller⁴ of Hartford, reported a stromal endometrium, having all the characteristics seen in this picture. This picture in my book, which was drawn without knowledge of what it was, demonstrates the small worm-like nodules growing in the lymphatic vessels of the fibroids. Our case was undoubtedly a stromal endometrium invading lymphatic vessels and was similar to Dr. Miller's case.

May I ask Dr. Ingersoll if x-ray treatment was given? In certain cases of stromal endometriosis, even though the tumor appears extremely malignant, with extensive invasion of the lymphatic vessels, x-ray treatment has been effective, presumably as the result of abolishing ovarian function. If this patient received x-ray treatment, what happened to her?

Dr. Ingersoll: She was extremely ill throughout her stay in the hospital, and we gave an unfavorable prognosis, not knowing what type of tumor she had. She received a total of 4100 r during a three weeks period. When seen in my office four months later she looked well. All the masses have disappeared except the one in the recto-vaginal septum.

Dr. Meigs: That is what Goodall and Miller state: that x-ray treatment, not of the tumor but of the gonads, may perform the miracle that seems to have been performed. This tumor and the one in the book are similar. My patient also is living and well, after a total removal of the genital organs. It looked as if she could not live when one saw the tumor masses, but she did.

Dr. Ingersoll: One of the patients in Frank's original cases responded well to x-ray treatment. The tumor had been incompletely removed, and following operation the patient received x-ray treatment and survived for a long time.

REFERENCES

1. Frank, R. T. "Fibromyosis": unclassified plexiform endolymphatic proliferation of the uterus. *Am. J. Cancer* 16:1326-1328, 1932.
2. Meigs, J. V. *Tumors of the Female Pelvic Organs*. New York. MacMillan Co., 1934.
3. Goodall, J. K. Endometrioma interstitialis. *J. Obst. & Gynec. Brit. Emp.* 47: 12-39, 1940.
4. Miller, J. R., and Tennant, R. Endometriosis interstitialis, with report of three cases. *Am. J. Obst. & Gynec.* 47:784-793, 1944.

RX, DX, AND DRS.

By Guillermo Osler, M. D.

The interpretation of WHAT AN ELEPHANT IS depends, as usual, on where you stand and who you are. . . . The House of Representatives sent its Committee on Interstate and Foreign Commerce to England and Sweden to observe that famous elephant, governmental medical service. . . . In general the elephant looked large and white to them. Most of the eleven members do not like elephants. Some of them were willing to look at the elephants, but others never want to see one again. Their opinions did not depend much on whether the congressmen were Democrats or Republicans. . . . Only one lawmaker really found many good points in the critter, and he was sold on it before he went abroad. Even he admitted that elephants have an awfully large appetite.

About a year ago the growing list of **ANTI-HISTAMINE DRUGS** was printed in this column. . . . Since then an occasional comment has been made (the reported special value of Trime-ton, etc.). . . . The names are of little importance now, at least for prescription use; the Food and Drug administration has authorized their public sale. They felt that such a drug as "Neohetramine" (Nepera Chemical Co.) was scantily toxic and safe. . . . So, the devil take the hindmost in the race to get drugs out for cold-prevention; "Anahist", "Inhiston", etc., are only the beginning. . . . The public often considers doctors to be selfish if an objection is made to the release of a drug, but **IT WOULD BE ULTRA-SENSITIVE IF WE DIDN'T SAY** that these drugs may not be entirely harmless, may not be wholly valuable, and may not always be taken at the correct time by the public.

Somewhere in the recent literature may be a report on the cure of acute BELL'S PALSY by aureomycin. If so, we haven't seen it. . . . The condition can have any of several causes, and one of them may be a virus. Aureomycin has been reported as effective in several virus infections. . . . The current case is that of a girl of 20 years who "caught a cold" in her neck during a chilly change in the weather. The immediate result was a right posterior cervical neuralgia, and two days later an abrupt paralysis in the right facial distribution occurred. . . . The condition was afebrile, and the nose, mouth, and throat were normal. It was decided to try a four-day course of aureomycin, and the drug was tolerated without toxicity. . . . On the third day the paralysis decreased; at the end of a week it was two-thirds gone; by the tenth day it had cleared. This is sooner than the most rapid re-

covery noted in the literature, which usually requires weeks to months. . . . One case is too few for an article, but just right for this paragraph.

Less than a year ago the early use of aureomycin was described in this column. . . . At about the same time a case of amebiasis was analyzed by Dr. Ländskog in the "Arizona Medical Problems" section. . . . Six months later McVay has reported the apparent effectiveness of **AUREOMYCIN IN AMEBIASIS**. It cleared the stools of both cystic and trophozoite forms of *Endameba histolytica* and, with very high blood levels, could be of value in extraintestinal lesions such as liver abscess. . . . The usual precautions against drawing conclusions from one case are again added.

Bryant and colleagues at Ann Arbor have devised a simple **URINALYSIS** which can be used in the home to regulate the use of a **LOW-SALT DIET**. It tests the sodium chloride excretion by use of potassium chromate, to which silver nitrate is added by drops. The end-point is clear cut and diagnostic.

NEEDLE-BIOPSY OF THE LIVER has a precise, valuable place in diagnosis of liver lesions—especially the diffuse ones. The complications before recently have been somewhat prohibitive. . . . R. C. Cogswell and colleagues of Cincinnati now report 403 attempts on 345 patients with no serious reaction, and with only 24 failures to obtain adequate material. . . . Though the entrance was usually made transpleurally, only two pneumothoraces occurred. Bleeding, the previous bugaboo, was rare, due to selection of cases and routine use of vitamin K after the procedure. . . . We have always wondered why a needle could not be constructed to allow the tissue to be withdrawn, following which a small core of coagulating-foam could be inserted through the carrier needle and left in situ. Probably it isn't feasible or (now) necessary.

Adults who develop **MUMPS** have always had a phobia about its complications, and it has been a real hazard to army groups, etc. . . . Hoyne, Diamond, and Christian have demonstrated in Chicago that 2 mg. of diethylstilbestrol daily by mouth reduces the incidence of **ORCHITIS** from one in four cases to one in twenty-five. It also relieves the condition in three to five days once it has occurred.

Here is another progress note on **REPLACEMENTS FOR RESECTED LUNGS**. . . . Claggett and colleagues at the Mayo Clinic previously re-

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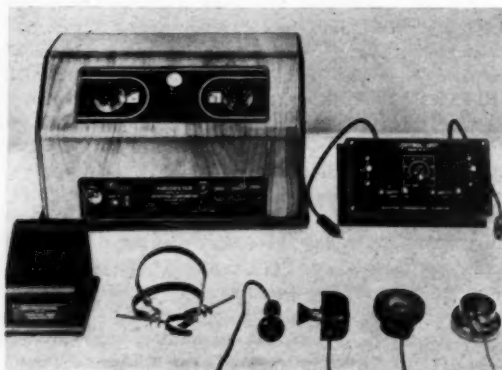
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ported a trial of sealed lung-shaped bags made of polythene and lucite; they filled the space and prevented a mediastinal shift in dogs, but polythene bags broke and lucite bags fit poorly. . . . The "Proceedings" for October 12th reports the use (by the same authors) of a plastic sponge material ("Ivalon") which is derived from formalinized polyvinyl alcohol. It has been trimmed to fit the hemithorax in dogs, faced with a polythene sheet medially, and sutured in place to the lateral chest wall. It is soaked in penicillin before insertion. . . . The post-operative condition has been good; no inflammatory reaction has occurred; the medial and diaphragm surfaces have developed an avascular collagenous coating; the sponge is adherent to the thoracic wall; and the interstices in the sponge become lined with a single layer of tissue, like vascular endothelium. . . . They feel that it is ready for trial in humans—and we hear that more than one surgeon is trying it.

A District of Columbia physician has been rude enough to give a report entitled "ATOMIC BOMBS OVER WASHINGTON." He made things even more sanguine and graphic by adding to his analysis and speculation several diagrams of the city, with "zero points" of attack, and zones of possible effect. He completes the gruesome picture by deriving the number of casualties which would occur with an attack at the most vulnerable time (5 A.M., Sunday, July 6, 1952—before dawn on a hot morning after Fourth of July week-end!).

Brief notes on odd effects of the new ADRENAL CORTEX HORMONE, — ACTH has been found by Torda and Wolff of Cornell to produce a partial, prolonged (3 months or more) remission in myasthenia gravis. A return to the normal neuro-musculo-chemical balance followed a preliminary relapse of five days after therapy. . . . Boland and Headley of Los Angeles have found the changes in arthritis from cortisone to be accompanied by a mental stimulation. Electroencephalographic studies showed an increase in the frequency of the alpha waves.

A new medical journal has a new section which is interesting. . . . "POSTGRADUATE MEDICINE", the journal of the Interstate Postgraduate Medical Association, has a department called "New Drugs and Instruments." . . . The paragraphs contain a description of each topic, with sources, usage, and precautions. The data come from the manufacturers, and are not certified by the journal.

It may be new to the outside world, but I'll bet they are already using it in Arizona! . . . Taplin, in the *Annals of Allergy*, has shown that MICROPOWDERED AMINOPHYLLINE or the-

ophylline can relieve asthmatic attacks more rapidly by inhalation than when given intravenously. . . . He used from 5 to 60 mg. in a lactose vehicle, and obtained good results in 30 of 35 chronic cases. The duration of relief varied from 20 minutes to 8 hours. . . . New and combined methods for asthma are usually routine practice in Arizona before they are reported elsewhere. Sadly, Arizonans rarely report them, though they should (and in "Arizona Medicine").

It may come as a shock to physicians who induce PNEUMOTHORAX, but three Sea View Hospital (N.Y.) doctors proceed on the basis of belief that all initial punctures result in trauma, and in a leakage of air from the lung. . . . They suggest that the puncture be done purposefully, in a controlled manner, with a fine anaesthesia needle. The regular refill is then done a few hours later, if fluoroscopy has shown air to be present. . . . This all sounds like defeatism, especially when blunt needles with lateral-tip openings are available.

Whenever we become too specialized or scientific, the presence of simple symptoms or syndromes can bring us back to the basics. . . . Have you thought about CRACKING JOINTS lately? Do you know their causes? . . . An Oregon physician notes that the probable cause is a fibrositis; the inflamed tissue contracts, and then stretches with a cracking noise when the joint is moved widely. . . . Low temperatures, high humidity, and the ionized air of storms are weather factors which are said to predispose. Nasal obstruction and catarrh are often associated.

Two groups have recently been concerned with bright new advances in the DRUG THERAPY OF TUBERCULOSIS. . . . Feldman and his colleagues at the Mayo Clinic have shown that PAS (Para-aminosalicylic acid) not only decreased the tendency of SM (streptomycin) to produce resistance in tubercle bacilli, but that it really augments the action of SM against tuberculosis in animals. PAS may produce a resistance to itself, but not unless given for more than four months, or if given with SM. The way by which SM works may have been indicated by some of their work with banal cultures, and other chemicals. The gathering of consultants to the Veterans Administration in Atlanta in mid-November produced several conclusions:—1. SM is better than the newer dihydrostreptomycin, and will be solely used in the future. 2. Discontinuous dosage is not showing good results (though many places use it). 3. Neomycin is still toxic, probably because of impurities, and may harm the kidneys; it is not ready for usage. (Today's paper reports its successful use in two non-tuberculous infections of the urinary tract. Dr. Bogen of Los Angeles says that there are three distinct compounds

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in what is known as Neomycin.) 4. The optimal doses are 1 gm. per day of SM, 12 grams of PAS; the best duration of combined usage is 90 days (though other groups like 6 to 8 weeks). 5. The new drug of Domagk's, "TB-1", was investigated in Germany by Dr. Hinshaw. The usage there was poorly notated and controlled; it equals PAS in effect alone, but not SM; it may be given orally for many months, and is about as toxic as sulfonamides; it has a notable effect on the larynx and intestinal lesions; it will have to be re-studied here, but lots of people want to use it meanwhile. . . . A San Francisco company has made a new PAS, called PASNA, which consists of stearate-coated granules which are tasteless, and much better tolerated than PAS.

If you want to confront doubters of VOLUNTARY HEALTH INSURANCE with simple facts, cite the growth of the Blue Cross. . . . 1938—1,000,000 subscribers; 1940—4,431,000; 1941—6,049,000; 1943—10,500,000; 1945—16,511,000; 1946 — 19,989,000; 1947—25,876,000; Dec. 31, 1948—33,000,000 (not counting 22 million other Americans protected against hospital expense by labor union and commercial insurance plans). . . . Each year the critics had a reason why the absolute limit had been reached. They were always wrong—and perhaps still are.

Probably a majority of physicians do not have reason to be concerned with the ills of children, or at least the RULES OF QUARANTINE. . . . The modern rules are surprising to one who is not au courant, and the recommendations of the American Public Health Association are even more radical than most D. of H. rules. . . . The duration of isolation has been generally shortened. The newer drugs, and a knowledge of etiology, are the responsible factors. . . . In New York City, for instance—SCARLET FEVER is isolated for one week, or as long as the symptoms last. The case is treated vigorously. The contacts are given a sulfa drug and allowed to go to school. . . . DIPHTHERIA is isolated for five days. Contacts are examined to see if they carry the disease. If negative they may stay out of the home and go to school; if they stay in the home, they are isolated as long as the sick child. . . . EPI-DEMIC MENINGITIS is not quarantined if treated with modern drugs. Contacts are given sulfonamides, and considered safe in 24 to 48 hours. . . . POLIO cases are isolated only as long as they have a fever. Contacts are not quarantined, though they are closely observed. . . . MEASLES is treated by isolation for only five days after the onset of the rash. Quarantine rules have never been found to change the epidemiology. CHICKEN POX cases are now isolated for only a week after the vesicles appear. Crusts do not contain the virus, and are harmless. . . . WHOOPING COUGH is infectious for less than two weeks after the whoop starts. The contacts may go to

school unless symptoms of a cold occur. . . . The simplicity and brevity of modern management is hard to believe—but easy on mothers.

The tendency of PENICILLIN to cause reactions when used by the oro-nasal route has been noted. It is being prescribed quite often to prevent complications from the "common cold." . . . Goldberg reports in the Ohio State Medical Journal 14 cases of CONTACT-SYSTEMIC REACTIONS, seen in a short period of time. The contact-type lesions in females may easily be confused with cosmetic dermatitis. . . . Inasmuch as there are no warnings of such a possibility on the inhalator, one must keep the hazard and diagnosis in mind. . . . Repeated minimal reactions may lead to a serious sensitization.

A colorful comment on THE SPEED OF MODERN MEDICAL PUBLICITY was written recently by Steven Spencer, a popular science writer for the Saturday Evening Post,—“The private practice of medicine is much more medicine and much less private than it was ten or fifteen years ago. The doctor, striving to familiarize himself with and to evaluate the parade of new drugs and techniques, finds an eager public looking over his shoulder — and sometimes breathing down the back of his neck. Etiology, diagnosis and therapy no longer form a mystic trinity of knowledge to which only the medical profession has access and which the patient must accept on faith.”

Mary McLoughlin, R.R.L.

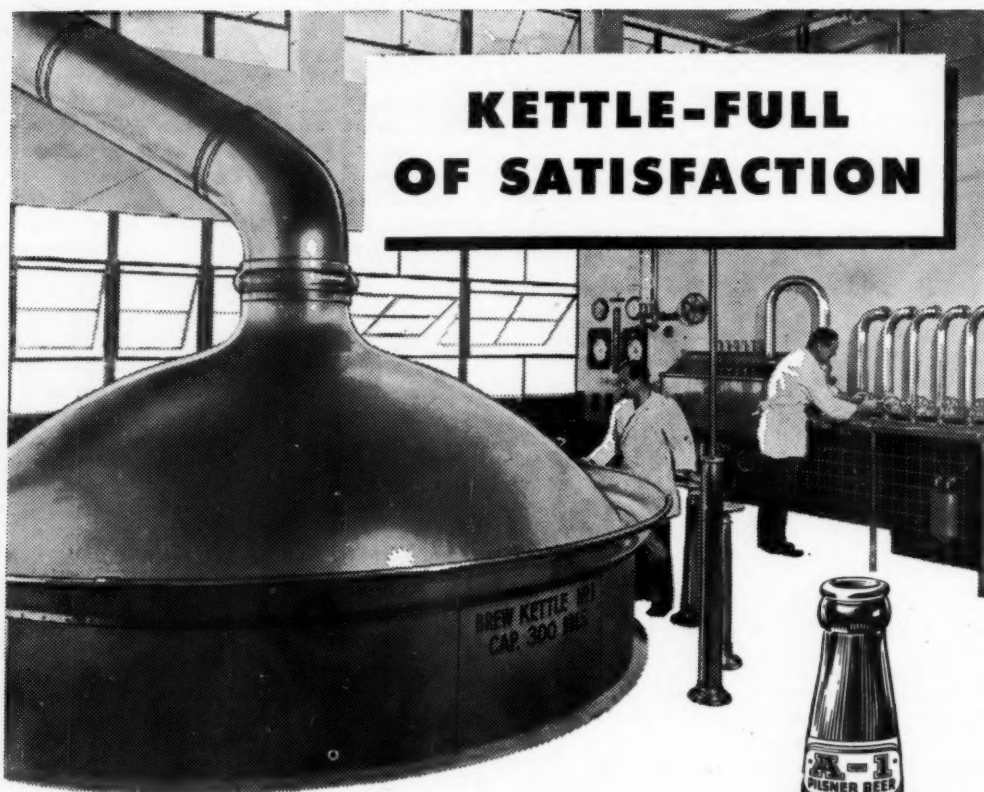
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PERSONAL NOTES

DR. JOHN R. MOTE, medical director of The Armour Laboratories of Chicago visited and was interviewed in Tucson. He is directing research on the ACTH hormone. Dr. Mote formerly lived in Tucson, attended the University of Arizona, and graduated from Harvard Medical School. He is enthusiastic over the prospects of help from the hormone, which is known to be of benefit in 32 diseases, and is being used in research in forty-five places in the United States.

DR. GLEN A. GIBBONS has been given his honorable discharge as an Army Medical Corps officer.

DR. CLARENCE KROEGER, former Pima County Health officer and now serving in a similar position at El Centro, California, has been named to a board for the study of water pollution problems in the Colorado River basin area in southern California. The appointment was made by Governor Warren.

The symposium on "Modern Treatment of the Bites and Stings of Small Desert Animals," published as a case-analysis in ARIZONA MEDICINE for July 1948, has been referred to as the model reference on antivenin therapy by the **QUERIES AND MINOR NOTES** section of the J.A.M.A.

DR. LAWRENCE REYNOLDS, Editor of the American Journal of Roentgenology, Detroit, addressed the Pima County Medical Society on "Polyposis of the Colon" at its December meeting. Dr. Reynolds also spoke before the staff and guests at the Veterans Administration Hospital on "Bronchiogenic Carcinoma."

Other speakers at the weekly V. A. meetings were Dr. Bert A. Cotton of Pasadena, California, who spoke on "Pulmonary Resection for Coccidioidomycosis," and Dr. Theodore B. Massell from the V. A. Hospital in Van Nuys, California, whose subject was "The Surgical Treatment of Hypertension; Arterial and Portal." Dr. Cotton also spoke at the V. A. Hospital, Whipple, on "Resection for Pulmonary Tuberculosis."

The plans for a \$50,000 psychiatric unit at the Tucson Medical Center have been presented to the citizen advisory board by **DR. MARTIN F. HEIDGEN**, the administrator. The new unit would hold between 20 and 30 patients, and is said to be needed in the Tucson area. The state has less than half of the beds of this type which are estimated necessary according to population, and there are very few in Pima County.

DR. GRACE M. ROTH and **DR. DELLA DRIPS** of the Mayo Clinic spoke before the American Medical Women's Association at its winter meeting in Tucson. Thirteen Tucson members were joined by thirty-two members from elsewhere in the United States. Dr. Roth, who is secretary of the Minnesota Heart Association and of the vascular section of the American Heart Association, had as her subject "The Effects of Smoking on the Human Organism."

DR. J. P. WARD, state director of public health, has called attention to the new school sanitation code which has been adopted by the state department. Under the new code the lighting, heating, ventilation, water supplies, school lunch rooms, and similar facilities will have to reach minimum standards. This will apply only to new construction at present.

Dr. Ward has been challenged as to his authority in discharging an employee of the Maricopa County department in a suit filed in superior court. The employee was joined as plaintiff by **DR. PAUL McCracken**, director of the county health unit.

DR. FRANCIS J. BEAN, superintendent of the Pima County General Hospital, has been forced to new economies in operation of the hospital. The average census is below that of 1948, but the cost per patient has risen steadily from \$8.15 in 1946-47 to \$13.83 for the early part of the current fiscal year. This problem is a general one.

The following named surgeons from Arizona were made Fellows in the United States Chapter, International College of Surgeons, at the Convocation ceremonies held during the Fourteenth Annual Assembly of the College in Atlantic City, New Jersey, November 7-11, 1949: **ARCHIE E. CRUTHIRDS, M. D.**, Phoenix; **JAMES M. OVENS, M. D.**, Phoenix; **CHARLES N. FLOUSSARD, M. D.**, Phoenix; **THOMAS WINFREY WOODMAN, M. D.**, Phoenix.

DR. KENNETH C. BAKER of Tucson, Arizona, attended the American Academy Meeting of Dermatology and Syphilology which was held at the Palmer House, Chicago, Illinois from December 3, 1949 to December 9, 1949 inclusive.

DR. BORIS ZEMSKY has recently addressed the Tucson Pan-Hellenic Society on "Sex Education in the Home", and showed a movie on social diseases. Dr. Zemsky also spoke before the Blenman P.T.A. on "Human Reproduction."

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The **ARIZONA TRUDEAU SOCIETY** held its annual meeting at the Westward Ho Hotel in Phoenix on December 3rd. The society is a regional affiliate of the American Trudeau Society, the Medical Section of the National Tuberculosis Association.

The program consisted of papers by **DR. BERT COTTON** of Pasadena on "Pulmonary Resection for Carcinoma of the Lung;" by **DR. O. N. SHELTON** of the Veterans Administration Hospital in Tucson on "Streptomycin and PAS in the Treatment of Tuberculosis," and by **DR. GEORGE BOONE** of Tucson on "Pulmonary Denervation for Intractable Asthma." There was also a luncheon-business meeting.

DR. L. L. TITCHE of Tucson was elected President; **DR. HOWELL RANDOLPH** of Phoenix became Vice-President, and **DR. H. E. KOSANKE** of Tucson remained Secretary-Treasurer.

A panel discussion on "Better Health for Your Child" was held in Tucson under the direction of Frank Williams of the state health department. Among the members of the panel were **DR. W. B. STEEN** and **DR. ELIZABETH LAIDLAW** of Tucson. Dr. Laidlaw also attended a meeting of the coordinating committee on School Health in Phoenix as a delegate of the Arizona Medical Society. **DR. LILLIAN B. JOHNSTON** was elected as chairman to succeed Mr. Williams.

A fund of \$10,338 has been allotted for study of methods to prevent pollution of Arizona ground and surface waters by the Federal Security Agency. The use will be by the state highway department.

DR. HAROLD SCHUMACHER, a mental hygiene consultant for the United States Public Health Service, discussed the needs for better hospitalization at a meeting of the Tucson Rotary Club. He was in the city for a meeting of the Council of Social Agencies.

DR. LEWIS H. HOWARD has been presented with a request for action on the question of hazardous ditches in Pima county by the county attorney. The health department will take immediate action to prevent tragedies from unfenced water-containing ditches.

The **UNIVERSITY OF UTAH** has announced that it may enlarge its college of medicine so that it may admit students from Idaho, Nevada, and Arizona. The school is the only one between Denver and the Pacific coast. The prompting to this step came from a recent regional governor's conference.

The Tucson Sanitarium has been sold to **DR. W. L. GROW** of San Bernardino, California. It will be known as Palm Lodge, and will be operated as a convalescent home for patients with

chronic non-communicable diseases. The directress will be Miss Margaret Thomas who managed the Arizona Elks Hospital for 19 years until she resigned in August.

DR. EHRLING PLATOU of Tulane University addressed the Arizona Pediatric Society in Phoenix.

DR. HOWARD COGSWELL of Tucson read a paper on Surgical Pancreatitis before the Southwest Surgical Congress at Houston, Texas.

The drive for funds to support the National Arthritis and Rheumatism Foundation has begun. The national president is **DR. W. PAUL HOLBROOK** of Tucson. He has joined **DR. C. E. BENSEMA** of the Tucson Chapter, and other state officers, in an appeal for funds.

The plans to establish a Rheumatic Fever Foundation in Wickenburg have been abandoned by the American Legion Post. Sufficient funds to convert the airbase facilities into a hospital could not be raised.

DR. BRUCE HART has announced the addition of three new members to the staff of the Arizona State Hospital in Phoenix. They are: **DR. JACOB SHAPIRO**, a psychiatrist formerly of the Washington State Hospital at Spokane; **DR. ALEXANDER MCKEAN**, a psychiatrist formerly with the hospital at Fergus Falls, Minnesota, and **DR. M. J. FLATLEY**, a chest specialist who has recently been at Napa, California.

DR. ONIE WILLIAMS, Phoenix, attended a session of the California Society of Pathologists, the College of American Pathologists, and California Cancer Commission Friday and Saturday, December 2nd and 3rd in San Francisco.

DR. HARRY CUMMING, Phoenix, attended a meeting of the American Academy of Dermatology & Syphilology in Chicago, Illinois, starting December 5th.

DR. JESSE D. HAMER, Phoenix, was the Arizona delegate to the A.M.A. mid-winter meeting in Washington December 4th to 9th. He is a member of the Council on Medical Service.

DR. ERNEST A. BORN, Prescott, was elected to membership in the American College of Surgeons.

DR. PAUL McFARLAND, Phoenix, recently was made a diplomate of the American Board of Ophthalmology.

DR. JOHN GREEN, Phoenix, attended the Western Society of Electro-Encephalography meeting in San Francisco recently.

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DR. LOUIS B. BALDWIN, Phoenix, attended the Pacific Inter-Urban Clinical Club in Salt Lake City November 4th and 5th.

DRS. HUGH THOMPSON and **B. P. STORTS**, Tucson, and **DRS. W. P. SHERRILL** and **HENRY RUNNING**, Phoenix, attended the American Academy of Pediatrics meeting in San Francisco November 12th.

MR. ROLLEN W. WATERTON, Oakland, California, will speak to the Pima County Medical Society in Tucson, Tuesday, January 9, 1950 and Wednesday, January 10, 1950 to the Maricopa County Society in Phoenix on the Alameda County Society Program. He is the executive secretary of the Alameda County Medical Society, which has an outstanding program.

DR. D. W. MELICK, Phoenix, was elected President-Elect of the Maricopa Medical Society at its recent meeting.

DR. FRANK EDEL, Phoenix, was elected Vice-president and **DR. D. C. JAMES**, Phoenix, was elected Secretary-Treasurer.

Arrangements for the Southwest Medical Association meeting to be held in Phoenix in 1950 will be in charge of the following committee of Phoenix physicians: **DR. JOSEPH BANK**, Chairman; **DR. M. W. MERRILL**, Exhibits; **DRS. KENT THAYER**, **L. D. BECK**, **LLOYD SWASEY**, **JOHN COGLAND**, **PAUL JARRETT**, **CLARK McVAY** and **JOSEPH GREER**.

Report of the Delegate

Washington, D. C., Clinical Session,
December 6-9, 1949

Last year the Clinical Session of the A.M.A. attracted 4,526 registered persons to St. Louis, Mo., 2,200 of whom were physicians. In Washington, this year, the registration exceeded 8,400, with 4,258 physicians in attendance. During the four-day scientific session, dozens of papers of interest to the general practitioner were read, there were a goodly number of scientific and commercial exhibits, and the colored and plain televised program of operations and lectures from near-by medical centers attracted a full house at all performances.

The registration in the House of Delegates from the States, Scientific Sections, U. S. possessions and Government Medical Services was almost one hundred per cent. The House was favored by impromptu speeches from the Secretary of the Canadian Medical Association and the National Commander of the American Legion.

As usual, activities of the House consisted of receiving reports from the Officers, Board of

Trustees, various Councils and Committees of the A.M.A., as well as accepting, modifying or rejecting reports of the various reference committees who had been assigned these reports. In like manner, commitments of policy were discussed, determined and accepted by the House by votes duly made and seconded, upon resolutions presented, covering many spheres of activity relating to medical care and practice.

A brief summary of some of the more important matters acted upon by the Officers, Board of Trustees, Councils and House of Delegates will be delineated in this report.

1. The Board of Trustees announced formally the retirement of Dr. Fishbein as Editor of the A.M.A. Journal. Dr. Austin Smith, former director of the Division of Therapy and Research and Secretary of the Council on Pharmacy and Chemistry, succeeds the former, while Dr. W. W. Bauer, Director of the Bureau of Health Education of the A.M.A. will replace Dr. Fishbein as Editor of Hygeia, the health magazine designed for the laity, and whose name will soon be changed to "Today's Health."

2. The House received its first report from the twelve-man Coordinating Committee, which is directing the National Educational Campaign, in cooperation with Whitaker and Baxter. The report showed a total of \$2,250,000 collected from last year's assessment of which \$2,050,000 was budgeted and approved for campaign expenses. Campaign literature cost was \$1,045,614.52, organizational work was \$139,415.27, and operation expenses \$209,122.90, or roughly, of the total—75%, 10%, and 15% respectively.

3. Upon recommendation of the Board of Trustees and approved by the Reference Committee on Constitution and By-Laws, the House approved by unanimous action a proposal to establish dues in the A.M.A. for its members. The fee was set at \$25.00 for calendar year 1950. This fee is aside from the \$12.00 which members must pay for member Fellowships and subscriptions to the Journal of the A.M.A. Considerable discussion was displayed on the floor of the House relative to the method of collection of this \$25.00 membership dues. It was finally decided that the fee should be collected by the local or state society in accordance with their own local custom and by-law provisions. It was made clear by the Chairman of the Board of Trustees, and annotated by the House, that physicians in retirement by reason of old age or permanent illness, or other disability, or those in financial hardship from any other cause, would not be expected to pay the dues. In case of non-payment of dues from any active member, financially able to meet this amount, a question arose over that physician's standing in his local medical society. The Board of Trustees will issue a statement in this regard within the near future, and its Chairman made it quite clear that the A.M.A. does not wish to

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jeopardize the privileges of any physician at the local level who is a member of his County Medical Society. Under the provisions of this action, the money so collected will be used to help cover expenses of the Association over and above the revenues received from its publications, in the promotion of Voluntary Health Insurance programs, and in the fight against the Administration's Compulsory Health Insurance proposals in Congress.

4. The House of Delegates approved a joint statement by the Council on Medical Education and Hospitals and Board of Trustees regarding the proposed bill, S-1453, regarding federal financial assistance to medical education. This statement was quite lengthy, dwelling on passages contained in a report by the Senate Committee on Labor and Public Welfare as amended. The joint report alluded to above and adopted by our House, concluded as follows: "Any program of grants-in-aid to medical education has far-reaching implications with respect to the freedom of medical schools. No program should be embarked upon until the protection of this freedom is absolutely guaranteed. The Board of Trustees feels that, since this bill does not guarantee such freedom and since the bill contains other undesirable features, as pointed out by the Council on Medical Education, it must urge opposition to the enactment of this bill—S-1453."

5. House Bill 6000, passed by the House of Representatives in the closing session of Congress in 1949 was considered by the Board of Trustees and their recommendations heard. This bill represents the Administration's version of liberalization and extension of the present Social Security Laws. Approximately eleven million persons are to be added to the rolls, including self employed, certain household domestics, salesmen and others (physicians are not included). The bill provided for raising the maximum taxable portion of wages to \$3600.00. A new category of coverage included in the bill is the section which provides for compulsory contributions for permanent and total disability insurance, and the A.M.A. is opposed to this section of the bill, because it is believed that this provision would be an entering wedge for socialized medicine. The reasoning behind such opposition is based upon the following premises: "Major benefits for unemployment which are included in the Social Security System are adaptable to mass administration from an office remote from the individual. This type of administration, however, is not similarly applicable to those with total and permanent disability. Age, and in some instances unemployment, are conditions over which the individual is unable to exercise any control, but total and permanent disability often can be influenced by the disabled person and his physician. Initiation of a compulsory federal disability program would

represent another step toward nationalization of medical care and socialization of the practice of medicine. If enacted, this bill would encourage further liberalizations which are not difficult to visualize, for example, payment of benefits to dependents of disabled persons, substitution of temporary for permanent disability benefits and eventually full case sickness and disability provisions. If such a plan were followed, a total national compulsory sickness taxation program for all practical purposes would be in effect. The A.M.A. recognizes the need for assistance to the disabled needy, but believes that this aid should be administered always on a local level, and not through a system of compulsory federal taxation or control."

6. The Board of Trustees announced that the Campaign Directors and Coordinating Committee will notify all state and county medical societies their decisions regarding our programs against governmental socialized medicine at the time, or immediately after the National Conference on Medical Service, scheduled for its meeting in Chicago in early February, 1950. The Board also announced the formation of an Inter-Association Committee on Health, whose function will be to consider all current problems relating to health and health care. This Committee is composed of three representatives from the A.M.A. American Dental Association, American Hospital Association, American Nurses Association, American Public Health Association, and the American Public Welfare Association.

7. The House ratified the revised essentials for acceptable Schools of Occupational Therapy, Physical Therapy, Schools of Medical Technologists, and of Medical Record Librarians, as presented by the Council on Medical Education and Hospitals.

8. The House adopted a resolution approving the creation of State and Local County Medical Society Grievance Committees, for the purpose of hearing complaints and adjudicating factual or imaginary injustices on the part of the laity against physicians.

It directed the Board of Trustees to make appropriate studies for the creation of a Junior American Medical Association, and to report at the next meeting of the House. This organization will include medical students, internes, residents and others not in actual practice.

The House adopted a resolution encouraging all hospitals to establish a section on General Practice.

It adopted another resolution relating to payment of decent salaries for full time public health officials, such salaries to be commensurate with their responsibilities, cost of living expenses, and based upon salaries paid for officials in similar positions.

Another resolution adopted encouraged the Council on Medical Service, through its Correlating Committee on Maternal and Child Health

to assist the American Legion, in cooperation with other health agencies, to assist in the development of a program for improved child health based on Community Action.

The House authorized the appointment of a committee of lay persons to help in the National Education Campaign.

A resolution was presented to the House of Delegates from Tennessee relative to the status of veterans with non-service connected illnesses. Much debate was had before the Reference Committee and the House on this subject. Its ramifications are so varied, and since many organizations are legally, as well as morally bound up in this problem, including the Governmental Medical Services, the Veterans Administration, various veterans organizations, and the Hoover Report, no definite establishment of policy could be formulated. The House, however, did instruct the Speaker of the House to appoint a committee of five to study the whole problem of medical care of the veteran with non-service connected disability, and report at the next session.

This report does not constitute a complete list of all the activities of the House. A complete summary of the minutes will be found in the Journal of the A.M.A. issues of December 17, 24, and 31, 1949.

Respectfully submitted,

J. D. HAMER, M. D.,
Phoenix, Arizona
December 23, 1949.

RULES OF THE BOARD OF SUPERVISORS OF THE COLORADO STATE MEDICAL SOCIETY

1. PURPOSES OF THE BOARD:

- a. To act as the Society's "grand jury" for investigating complaints and/or initiating investigations concerning professional conduct and ethical deportment.
- b. To prepare, for issuance to the entire membership in bulletin form through the executive office, periodic bulletins on ethical deportment containing definite educational advice to physicians in this regard.
- c. To initiate and prosecute, just as would a grand jury in civil procedures, charges against any physician deemed by the Board guilty of unprofessional conduct. These charges may, in the discretion and judgment of the Board, be filed originally with the Board of Censors of any component society, direct with the Councilor of the appropriate district of the State Society, direct with the Board of Councilors of the State Society, direct with the State Board of Medical Examiners, or direct with any criminal court, according to the nature of the charges.

d. By way of further definition, it should be understood that the Board of Supervisors has no final jurisdiction in a judicial way. Just as would a grand jury, it will receive and pass its own judgment upon evidence, but it will not assume authority to discipline any physician. It may at any time express its advice to a member of the Society on any matter pertaining to professional conduct.

e. In pursuance of its function as a grand jury within the structure of the Society the Board shall have the power and authority to summon members of the Society to appear before it, either in connection with complaints involving the members summoned or as witnesses in cases involving other members. In case any member shall fail to respond to such summons, the Board of Supervisors shall cite the member before the Board of Councilors for contempt proceedings.

2. **Standards of conduct.** The current edition of the "Principles of Medical Ethics of the American Medical Association", as interpreted from time to time by the Board of Councilors of the Colorado State Medical Society for this state, shall be the final standard by which all professional conduct and ethical deportment are determined.

3. **Organization of Board.** The Board annually elects a chairman, a vice-chairman, and a secretary from among its own members. The By-Laws of the Society do not permit any member of the Board to participate in the deliberation of questions concerning the conduct of a physician residing in the jurisdiction of that Board member's component society. In view of this fact the Vice-Chairman will preside in all cases involving a member of the Chairman's district, and the Vice-Chairman will serve as Secretary in all cases involving a member of the Secretary's district. Thus, two disinterested officers of the board will always assume these functions. Any person against whom an accusation is made will be informed that the member of the Board residing in his district will not be present during the Board's deliberation of that case. However, if the accused is willing, the Acting Chairman of the Board may, on occasion, instruct the Board member in the accused's district to undertake preliminary investigation, obtain information, and report to the Board, in order to expedite proceedings and eliminate unnecessary travel.

4. Professional and Technical Assistance:

- a. Unless in a given case the Board determines that verbatim testimony should be taken, no person other than elected members of the Board and any witness then being heard will be admitted to any part of its proceedings when a complaint is being considered.

- b. Should it become necessary in the opinion of the Board to take verbatim testimony in any case the Board will obtain the service of a certified shorthand reporter licensed by the State of Colorado for such purposes. No regular employee of the Society will be requested or permitted to take notes or minutes on such matters.
- c. In the event the Board reaches the point, in any investigation, where the Board feels it should file and prosecute charges against a physician before any judicial body the Board will, before filing such charges, consult with the regular retained attorney of the State Society to determine the sufficiency of the evidence.

5. General Procedure:

- a. The Board will receive complaints either verbally or in writing from any person, whether or not he or she be a physician, a member of the Society, an employee of the Society, a patient of a physician, or any other person, lay or professional.
- b. The Board will respect the completely confidential nature of any complaint, provided that any complainant unwilling to appear personally before the Board will be given to understand that such unwillingness prejudices against the possibility of the Board being able to make a complete investigation. Every complainant will be invited to appear before the Board with the assurance that even the fact of his appearance before the Board, as well as the origin of the complaint, will be kept confidential; provided however, that should any form of prosecution result the Board will of necessity reveal the names of prospective witnesses; even though these names may include that of the complainant.
- c. The Secretary of the Board will acknowledge receipt of all complaints, either verbally or in writing as the circumstances of each case indicate to be wiser. The Secretary will likewise, in consultation with the Chairman, arrange for meetings of the Board with such frequency as may be necessary so that investigation of each complaint is carried out with reasonable dispatch, and will notify complainants and any other persons whom the Board wishes to interview concerning meeting dates and places. The Secretary will, at all times, keep the Chairman informed concerning the progress of investigations conducted otherwise than at meetings of the Board.
- d. The Chairman, on receipt of information from the Secretary concerning each new complaint, shall determine whether first investigation or action on the complaint should be by the whole Board at a meeting or by one or more members of the Board individually. In most cases the Chairman will designate one or two members of the Board who are not residents of the same district as the physician being complained against to undertake a preliminary informal investigation, bearing in mind the confidential nature of such investigations.
- e. When an informal investigation like that referred to next above has convinced at least two members of the Board (not including the member in whose district the physician under investigation resides) that no disciplinary action is indicated and that both the complainant and the physician involved are willing to accept the advice of the Board for reconciliation of the complaint, the advice and suggestions of the Board shall be reduced to writing and supplied to both complainant and the physician concerned, over the signature of the acting Chairman.
- f. When an informal investigation like that referred to in "d" above convinces any disinterested member of the Board that disciplinary action is indicated, the entire Board except the member whose district is involved shall consider the matter formally in meeting before further action is taken, and further action shall be determined by majority vote of those present.
- g. When, after investigation and attempts to effect amicable settlement, the Board is unable to reconcile differences over fees charged by a member of the Society, the Board shall by a majority vote determine the fee which it deems fair and proper. In case the Society member shall agree to the amount so fixed and shall fail to abide by his agreement, the Board of Supervisors shall cite such member before the Board of Councilors for contempt proceedings. Failure of the member to agree to such determination of the Board of Supervisors shall constitute grounds for the preferring of charges of unprofessional conduct under the principles of ethics.
- h. Whenever the Board determines to file charges against a member of the Society with either a Board of Censors or the Board of Councilors, the charges shall be reduced to writing and filed over the signature of two officers of the Board and over the typed signatures of all other members of the Board who have taken part in the proceedings.

In the event that, in consideration of a case involving complaint against a physician who is not a member of the Medical

Society, it is determined that disciplinary charges should be filed against the doctor with a Board of Censors or the Board of Councilors were he a member of the Society, but it is also determined that the evidence does not justify proceedings before the State Board of Medical Examiners or a criminal court, the Board shall reduce its findings to writing, and subject to advice of legal counsel, shall notify the physician concerned of its findings and shall file a copy of this notice with the executive office of the State Society and the Secretary of the State Board of Medical Examiners for future reference.

- i. Both the original complainant and the physician against whom the complaint has been made will be furnished with a written statement and explanation of the final decision of the Board as soon as possible after the Board has completed its investigation of the case, whether (1) the Board considers the case closed or (2) decides to file charges with a judicial body.
- j. Immediately after each meeting of the whole Board, the officers of the Board shall prepare and deliver to the executive office of the Society, a memorandum suitable for inclusion in the monthly News Exchange, concerning any non-secret actions taken or general advice arrived at concerning the status of ethical deportment within the Society. In the event it is desired that such material be made the subject of a special bulletin to the entire membership of the Society, the Board shall make this decision known to the Executive Secretary.
- k. Whenever the Board determines that contemplated actions of the Board, other than bulletin services indicated next above, will require use of certified shorthand reporters, telegraph or long distance telephone service, travel expense, or other matters involving State Society finances aside from routine services of the executive office, the Board will notify the Board of Trustees of the Society through the Executive Secretary, and estimate the financial requirements of the action then contemplated.
- l. Officers of the Board shall keep appropriate and sufficient records of all of its final actions, other than confidential matters, and shall prepare quarterly reports of progress to the Board of Trustees and an annual report and recommendations to the House of Delegates.
- m. Until further notice, the Board will meet regularly at 2:00 p.m., on the last Saturday of each calendar month in the Executive

Office of the Society, subject to the privilege of the Chairman to postpone any such meeting if the date is impractical.

... As revised by the Board of Supervisors in meeting August 27, 1949

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CONGRESSIONAL RECORD — March 11, 1949 — A1470

TEN-YEAR NAVAJO PROGRAM

Extension of Remarks of
HON. HAROLD A. PATTEN
of Arizona, in the House of Representatives

Friday, March 11, 1949

MR. PATTEN: Mr. Speaker, only through substantial improvement in their lot can any lasting benefits be given to the Navajo Indians. The 10-year program to build schools, to construct roads, to improve the lands of the Navajo Reservation, and to provide reservation businesses and encourage off-the-reservation employment and settlement is the first requirement. I join the President in pressing for hearings and favorable action on the Navajo program.

I include here the announcement by the Interior Department regarding the Navajo rehabilitation program:

Department of the Interior, Information Service,
Office of the Secretary

10-Year Navajo Program Resubmitted to Congress

Acting on direction of President Truman, a 10-year program for the rehabilitation of the Navajo and Hopi Indian Tribes was resubmitted to Congress today by Secretary of the Interior J. A. Krug.

"The United States," President Truman wrote in his instructions to Secretary Krug, "which would live on Christian principles with all of the peoples of the world, cannot omit a fair deal for its own Indian citizens."

The program, similar to the one submitted to Congress last year and upon which no action was taken, except for a minor grant, calls for the expenditure of \$90,000,000 for capital investments on the reservations.

"At my request," the President wrote, "you prepared and presented to the Congress on March 15, 1948, a proposed 10-year program for the rehabilitation of the Navajo and Hopi Indians of Arizona and New Mexico. Except for one small segment of this program, the Eightieth Congress failed to enact the necessary legislative authority to place it in motion.

"The needs of those Indians are as great today as they were a year ago. Indeed, the severe winter storms have emphasized the serious economic conditions prevailing among these tribes. The authorization of this long-range program is considered essential to enable these groups of Indians to become healthy, enlightened, and self-supporting. I hope you will continue to emphasize to the Congress the needs of the Navajos and Hopis."

A draft of a bill designed to accomplish the purpose of the long-range program is made part of the report sent to the Congress.

Similar in most respects to the 1948 program, except for wider benefits to the Hopis, the program provides for the expenditure of \$25,000,000 for the construction of school buildings, the purchase of equipment and for other educational improvements on the reservation. An additional \$20,000,000 is sought for the construction of roads and trails.

The Secretary's proposals for carrying out the program are summarized as follows:

Purpose of expenditure and amount needed—

1. Soil and water conservation and range improvement	\$10,000,000
2. Completion and extension of existing irrigation projects	9,000,000
3. Surveys and studies of timber, coal, mineral, and other physical and human resources	800,000
4. Development of community enterprises and industries	1,500,000
5. Relocation and resettlement of Colorado River Indian Reservation	5,750,000
6. Development of opportunities for off-reservation employment and assistance in adjustments related to such employment	3,500,000
7. Hospital buildings and equipment and other health conservation measures	4,750,000
8. School buildings and equipment and other education measures	25,000,000
9. Establishment of a revolving loan fund	5,000,000
10. Construction of roads and trails	20,000,000
11. Construction of air transport facilities	1,000,000
12. Telephone and radio communication systems	500,000
13. Agency and institutional water supply and other service facilities	3,500,000
Total	\$90,000,000

The 1948 report was based on information secured over many years including four separate studies which were initiated by Secretary Krug in 1947 and 1948. These surveys made by Department of the Interior experts, prominent ed-

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ucators and representatives of the American Medical Association, cover most phases of the problem of the Indians.

The report declares that education is one of the important and probably the most difficult aspect of the entire problem.

The ultimate educational goal is to provide school facilities for all of the 24,000 Navajo children, between the ages of 6 and 18 years. At present there are facilities for only 7,500 children, of which 6,500 are accommodated in Government schools and 1,000 in mission schools. It is recommended that plans be immediately launched for the expansion and repair of eight existing reservation schools and that two additional boarding schools on the reservation will be built. Other improvements contemplated in the program are the conversion of 17 day schools to semi-boarding schools and the enlargement or conversion of 33 day schools. Also recommended is the increased use by Navajos of existing off-reservation boarding schools and the use of the schools at the Colorado River Indian Reservation. These measures will increase total school capacity to 13,290 seats.

Construction of 636 miles of primary and 638 miles of secondary roads is of fundamental importance to the program. The primary system will provide transportation service to the chief centers of population and to main school, hospital, and business locations. The primary roads will connect with State roads off the reservations. The secondary system will provide transportation to areas which cannot be served by the primary system.

Improvement and development of reservation resources, which include range, soil, and moisture conservation measures, are included in the program. Included also are extensions of irrigation systems, surveys of timber and minerals, development of arts and crafts and community enterprises and industries.

Resource development and utilization and off-reservation employment can be expected to contribute to the support of only 6,950 families out of the 12,000 families on the reservation. The remaining 5,050 families must find some other means of earning a living, the report points out. Some progress has been made in the off-reservation settlement, but it is proposed that 1,000 families resettle on the Colorado River reservation, which has excellent soil suitable for farming. Additional development on the Shiprock-San Juan irrigation project is designed to provide a living for an additional 2,600 families. However, the report points out that the balance of 1,450 families must look to off-reservation employment and resettlement.

The Shiprock-San Juan project, it is pointed out, will provide a livelihood for the greatest number of Navajo families. The proposed area

recommended comprises 117,000 acres, of which 115,000 acres are tribal lands and approximately 2,000 acres non-Indian lands.

RESOLUTION

At the Atlantic City Session of the House of Delegates of the American Medical Association the following resolution presented by Dr. William Weston, delegate of the Section on Pediatrics, was adopted:

Whereas, The Academy of Pediatrics has a particular interest in the field of child health; and

Whereas, It is recognized that certain deficiencies exist in this field; and

Whereas, It is desirable that definite programs be set up on the state and local level to correct these deficiencies where they exist; and

Whereas, The Academy of Pediatrics has gone on record as opposed to Senate Bill 5, or any similar bill proposing to establish a system of socialized medicine; therefore be it

RESOLVED, That the American Medical Association favors the development of sound child health programs on the state and local level by pediatric groups working in cooperation with the several state medical associations and local component county societies and in conformity with the Principles of Medical Ethics as laid down by the American Medical Association.

At the suggestion of a member of the American Medical Association's Liaison Committee with the American Academy of Pediatrics, this resolution is being distributed to all constituent associations for such implementation as may be possible.

Income Taxes and the Doctor

(EDITOR'S NOTE: The following article on income tax matters of current interest to readers of Arizona Medicine was prepared by members of the Arizona Society of Certified Public Accountants and contributed by the Society as a public service.)

A continuous stream of Treasury Department decisions and instructions make it necessary that the members of the medical profession keep before them constantly the question of income tax, its reasons, its methods of computation, and the proper deduction of allowable expenses.

Treasury Department rulings in setting up definitions of allowable business deductions tend to reduce rather than increase the amounts which can be deducted from gross income before arriving at the net taxable income. The Treasury Department, through the Bureau of Internal Revenue, has recently employed several thousand

additional field workers for the purpose of making spot checks of returns filed by all classes of taxpayers. In the past only those returns which showed some miscalculation of tax, some incorrect statement of income or expense, or which contained items which appeared questionable have been examined by a check of the books and records of the taxpayer for the period covered by the return. The new method of spot checking involves the selection of returns at random regardless of size, tax liability, or source of income. This spot check has proved of much value to the Treasury Department, and agents have found discrepancies in many returns due to both intentional and unintentional oversight of income, and to deductions in amounts that cannot be substantiated by the books of the taxpayer or his records of disbursements verified by cancelled checks or paid statements. The additional taxes obtained under this program have encouraged the placing of several thousand new field men throughout the United States for the next year to check more closely the returns filed not necessarily by the large corporation, the large taxpayer, or the business man, but by all persons and organizations which should report all income received.

Several items which the medical profession should give careful consideration are; *First:* A complete record of all cash received, the name and address from whom received even though the patient pays cash at the time of treatment and no bill is rendered. The medical expense deduction allowed during the past few years makes the doctor's records a source of verification of medical bills paid as reported by the taxpayer and makes it mandatory that a complete record of patients' payments be kept.

Second: A complete record of payment of expense incidental to the practice of medicine include such items as rent, salaries, medical and surgical supplies, telephone, telegraph, postage, office supplies, laboratory expense and so forth must be kept. These expenses should be paid in such a manner as to furnish the payer with cancelled check or receipt marked "Paid."

Third: Automobile expense should be carefully defined so that no question may arise as to its use in business. Personal use of the car by the doctor or his family does not constitute a deductible expense.

Fourth: Professional entertainment is allow-

able only to the extent that it is incidental to the operation of a professional practice and varies in amount and type when deducted by medical doctors who do general or specialized work. It is suggested that the items considered by the doctor to be professional expense be enumerated daily or immediately after such expense is incurred or paid so that any deduction claimed can be substantiated. The Department of Internal Revenue is becoming more cautious in its view of professional entertainment as a deduction and is requesting more information as to its professional necessity.

Fifth: Travel expense to conventions and for business purposes should be carefully watched so that the amounts deducted for this item can be itemized and thereby substantiated should the need arise. Any expense for post-graduate work is not a deductible item.

Sixth: A reasonable deduction for depreciation on the equipment including office furniture and fixtures, library, automobiles when used on business, and instruments, is acceptable to the Treasury Department. This depreciation is to be based on the estimated life of the item considered. Most small instruments and medical supplies usually are charged off immediately as an expense at time of purchase.

Seventh: Bear in mind that deductions against income are allowable only to the extent that they can be substantiated by actual disbursements, and that there is no fixed amount allowed or any percentage of income accepted as a reasonable amount.

It is the intent of this article to impress upon the medical profession the necessity of keeping accurate and complete records of all items of income from practice, substantiated by individual records of sources. All expenses should be so recorded that immediate explanation can be made to the agent who may be assigned to check your return.

Complete records regularly checked by a Certified Public Accountant are the doctor's best assurance that his current transactions are being properly recorded and that his payments are the minimum required for full compliance with the income tax laws.

It is important to all members of the Association to patronize the advertisers who use space in our Journal,

WOMAN'S AUXILIARY



MRS. DONALD B. LEWIS

President Pima County Medical Society

Mrs. Donald Lewis is a native of York, Penna. She is an R. N. from The University of Pennsylvania Hospital in Philadelphia, and after graduation worked there as Medical Supervisor.

While in training she met Dr. Lewis, who was then a medical student at The University of Pennsylvania. The Lewis' have two children—Diane and Donald.

While Dr. Lewis was in service, Mrs. Lewis worked as an Anesthetist in the Tucson Hospitals. Mrs. Lewis has held various offices during the past twelve years in the Pima County Medical Auxiliary.

Dr. Lewis specializes in Urology.

PIMA COUNTY AUXILIARY

The monthly meeting of the Pima County Medical Auxiliary was held Tuesday night in the Blue Room at the Santa Rita Hotel.

Miss Agnes Link of Flowerland gave an interesting discussion on the arrangement of Christmas greens and demonstrated several beautiful floral arrangements for the holidays.

The members of the Auxiliary were asked to assist in the donation of soap for the KTUC Volunteer Soap Drive for Trikkala, Greece.

Mrs. Donald Lewis, President, also announced that a donor recruitment chairman would be

selected to outline a Blood Donor Program for the Auxiliary in conjunction with the American Red Cross Blood Center.

Hostesses for the refreshments were: Mmes. H. D. Cogswell, Chairman; H. C. James, J. K. Bennett, B. B. Edwards, Ed J. Gotthelf, Robert Hastings, Leo J. Kent, J. L. Donahue, C. A. Stephens, J. L. Whitehill, Michael Bernfeld and Raymond Bock.

ACTIVITIES OF THE MONTH

The Pima County Medical Auxiliary assisted in the collection of toys for Trikkala, Greece, Tucson's adopted city. Mrs. Howard Douds, chairman of the committee, was assisted by Mmes. Harold Kosanke, Ed J. Gotthelf, James W. Davis, Richard K. Hausmann, George Fraser, E. R. Baldwin, J. M. Sickler, George Shetter, W. S. Kitt, J. H. Woodard, B. W. Saylor and Donald Lewis.

The Pima County Medical Auxiliary assisted the Pima County Tuberculosis and Health Association in the sale of Christmas Seals at the Valley National Bank during the week of December 5 to 10. Mrs. J. M. Sickler was appointed general chairman. The following members assisted in the sale: Mmes. J. M. Kinkade, Donald Lewis, George Shetter, George Fraser, D. L. Sechrist, Maxwell Palmer, D. E. Engle, and Max Costin.

1949 CONFERENCE REPORT

The report of Mrs. Benjamin Herzberg, President-elect Woman's Auxiliary to the Arizona State Medical Society, on the 1949 Conference of State Presidents and Presidents-elect, and National chairmen of standing committees, at Hotel LaSalle, Chicago, Illinois, November 3rd and 4th, 1949.

The sixth annual conference of State Presidents and Presidents-elect and the National Board of the Woman's Auxiliary to the American Medical Association, convened in Chicago, November 3rd and 4th. The theme of the conference was the "A.M.A. Twelve Point Program," and the purpose, to bring together the above mentioned group so that auxiliary problems could be discussed and advice given by the National committee chairmen. The only social

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aspect of the meeting was the opportunity to know other auxiliary officers and to meet the National Board.

Your National Board is comprised of a group of intelligent, enthusiastic and sincere women, who realize the importance of their work and do it in a most commendable fashion. They digest volumes of material and bring to us the vital information we need to function on a State level. The following are some of the highlights of the National reports.

1. It is necessary for every Auxiliary member to subscribe to the bulletin and not only subscribe, but read and digest its contents. It is the official publication of the organization and keeps members informed on all activities. A complete summary of the conference will be published in the next issue.

2. We must purchase and encourage the sale of Hygeia. Not only does it print authentic health information, but it is a means toward good public relations.

3. Auxiliaries should be organized wherever possible, membership increased and members at large activated.

4. It is essential that we know and understand the A.M.A. Twelve Point Program, with a speaking knowledge of the tenets thereof, not just a reading knowledge. At all times, we must encourage the promotion of voluntary health insurance plans.

5. City and County health programs should be of vital interest to all. It, too, is an excellent means toward good public relations.

6. Cooperate with your legislative chairman by writing to your congressman or representative when requested so to do, and follow through with a note of thanks for anything helpful they may do. They should be kept informed of our position at all times.

The first day's activities were interspersed with a number of interesting speakers. Dr. Andrew C. Ivy, Vice-President of the University of Illinois Professional Schools, stressed the need to continue the "doctor-patient relationship", which, if shared by a third party, would lead to medical deterioration and the loss of the democratic way of life in due time; that we have rights as individuals and we cannot permit ourselves to become controlled by a third party.

Fred V. Hein, Ph. D., Consultant in Health and Fitness of the A.M.A., explained the need of the school health program in that we have an obligation to help parents improve the health of their children, and that it can be the most fruitful source of public relations that is open to us. He urged that the Auxiliaries be encouraged to do everything possible to assist their medical societies in this regard.

Mr. Lawrence Rember, Director of the Department of Public Relations of the A.M.A., asked that we help to get effective endorsement

drives among women's organizations, participate in the work of the medical society bureaus, and have a well organized literature distribution system.

Mrs. Charles Sewell, Administrative Director, Associated Women of American Farm Bureau, was a most interesting and dynamic person. She gave us an insight into the problems of rural health, the need, not only for doctors, but for proper medical facilities to encourage the doctors to stay in the rural areas. She stated that one of the first problems to come before the farm bureau groups was that of rural medical care. Her closing remark, and a very fit one, was "the good accomplished and the work done is measured by the worthwhileness of the cause."

The discussion of Auxiliary activities by State Presidents was eliminated from the agenda. It was recommended that the time be given to discussion of the national reports and of individual problems. Each president was asked to submit her report, in writing, for the purpose of the bulletin.

A number of states have their own auxiliary publications and find it a most effective means of keeping all county auxiliaries informed and of maintaining a more personal contact with members. There was much discussion concerning the state medical associations paying dues for all wives. The state of Oregon found it a most successful way of organizing—others felt it did not encourage active and interested members. However, it is the problem of the state as each in an organization unto itself.

Others speakers were Dr. Ernest E. Irons, Dr. J. J. Moore, and Dr. Louis Bauer, President, Treasurer and Chairman of the Board of Trustees of the A.M.A. respectively. All stressed the need for good public relations, to be properly informed, interest in public health programs and the ability to disseminate authentic and approved information.

Dr. James R. Miller, member of the Board of Trustees of the A.M.A. spoke on the Commission on Chronic Illness. Dr. Miller is chairman of the Commission, and the subject of chronic illness is one of the provisions in the Twelve Point Program. The purpose of the Commission, in part, is designed to help prevent chronic illness, as far as possible; to minimize its disabling effects and to restore its victims to a socially useful and economically productive place in the community; to stimulate in every state and locality a well-rounded plan for the prevention and control of chronic disease and for the care and rehabilitation of the chronically ill.

Not only was it a personal privilege and pleasure to attend the conference, but it was most enlightening and inspiring. There is so much for auxiliary members to do, and without delay, for as the National Legislative Chairman so aptly stated, "it is later than we think." This is a

nation-wide problem, not only that of the doctor, for to permit Federal control of anything as vital as public health is the beginning of the end of the American way of life as we know and enjoy it. American medicine must be kept free of politics and to keep it that way means that we cannot permit ourselves the luxury of indifference or apathy. It is a challenge we cannot ignore and we must fight it with knowledge and patience.



MRS. CYRIL M. CRON

Mrs. Cyril M. Cron is President of the Woman's Auxiliary to the Gila County Medical Society. She was born in New York and attended schools in New York and Arizona.

Mrs. Cron is a Board Member of the Miami Public Library; Chairman of the Red Cross Mobile Blood Unit, and immediate past-president of the Miami Library Club.

Her hobbies are traveling, collecting rare books and an interest in Art.

She is married to Dr. Cyril M. Cron, Physician and Surgeon of Miami, Arizona.

Mid-Winter Radiological Conference

The Second Annual Mid-Winter Radiological Conference, sponsored by the Los Angeles Radiological Society will be held at the Biltmore Hotel on February 25 and 26 of 1950. Non-radiological colleagues interested in any of the courses are, of course, invited to attend. The cost for the entire two-day session is \$15. A banquet will be held on Saturday evening, February 25, at

which Dr. Juan A. del Regato will deliver an address on "Transvaginal Roentgen Therapy for Carcinoma of the Cervix." The charge for the banquet is \$5. Reservations for the meeting and banquet should be accompanied by a check for \$20, and sent to Dr. Moris Horwitz, 441 North Camden Drive, Beverly Hills, California. Hotel reservations may be made by applying directly to the convention manager of the Biltmore Hotel, Los Angeles. Early reservations are suggested since accommodations are limited.

The program is as follows:

Saturday, February 25, 1950

- 10:15 A.M. Address of Welcome—
Dr. William Costolow, President,
Los Angeles County Medical Assn.
- 10:30 A.M. Dr. George Griffith, Pasadena, Calif.
"The Roentgen Treatment of Hypertension."
- 11:00 A.M. Dr. Robert Pugh, Pasadena, Calif.
"Pitfalls of Radiation Protection."
- 11:30 A.M. Dr. Ray A. Carter, Los Angeles, Calif.
"Roentgen of Manifestations of Certain Granulomatous Lesions of the Lungs."
- 2:00 P.M. Dr. Gordon G. King, San Francisco, California
"Similar Anomalies and Dystrophies in Infants and Young Children."
- 2:45 P.M. Dr. Marcy Sussman, Phoenix, Arizona
"Newer Diagnostic Methods in Difficult Congenital Cardiac Cases."
- 3:30 P.M. Dr. Samuel Perzik, Beverly Hills, California
"Surgical Management of Post-Irradiation Complications of the Larynx."
- 4:15 P.M. Dr. Ian MacDonald, Los Angeles, Calif.
"The Use and Abuse of Hormone Therapy in the Treatment of Cancer."
- 6:00 P.M. Cocktails. (Compliments of the X-ray and Radium Equipment Manufacturers and Suppliers of Los Angeles.)
- 7:00 P.M. Banquet. Master of Ceremonies—
Dr. Lowell Goin
Speaker: Dr. Juan A. del Regato
"Transvaginal Roentgen Therapy for Carcinoma of the Cervix."

Sunday, February 26, 1950

- 9:30 A.M. Dr. Marcy Sussman, Phoenix, Arizona
"Granulomatous Diseases of the Small Bowel."
- 10:15 A.M. Dr. Henry Kaplan, San Francisco, California.
"Roentgen Examination of the Colon."
- 11:00 A.M. Dr. Earl R. Miller, San Francisco, California
"Radio-active Iodine in Medicine."
- 2:00 P.M. Dr. Juan A. del Regato, Colorado Springs, Colorado
"Roentgen Therapy of Carcinoma of the Lip."
- 3:00 P.M. Dr. Henry C. Crozier, Los Angeles, California
"Myelography: A Review of 453 Consecutive Cases."



Arizona
Blue Shield



Blue Cross

ARIZONA BLUE SHIELD HAS BIRTHDAY — NOW TWO YEARS OLD

October and November were birthday months for Arizona's voluntary, non-profit community-sponsored health plans. Blue Cross observed its fifth birthday in October, appropriate ceremonies and the able assistance of Lawrence C. Wells, Manager of the Public Relations Division of the Blue Cross Commission.

Arizona Blue Shield had its birthday turn in November, when on the fifteenth it marked the end of its second year of operation. While no special observance was planned, the date did not pass without notice. It was publicized widely in the newspapers of the State and in such special publications as the Health Activities Bulletin; Arizona Medicine, the official journal of the Arizona Medical Association, and the Western Hospital News Letter.

At the end of October, the Arizona Blue Shield membership stood at 45,148. This represented an increase in ten months of 26 per cent over the 33,476 members on the rolls at the end of 1948. The October 31 membership was covered by 15,525 separate Blue Shield contracts for an average of 2.81 members per contract.

From its beginning through October of this year, Arizona Blue Shield had disbursed a total of \$270,074.87 to physicians for the benefit of its members—\$222,859.12 in the first ten months of the year. Total disbursements covered 3,625 cases, and of this number 2,708 were paid in 1949. The total number of maternity cases paid through September of this year (the last period for which figures were available as this was written) was 239. There were only 23 maternity cases paid in all of 1948 because of the fact that the Plan was new and a full nine-month waiting period is required of members for maternity eligibility.

Operating expenses for Arizona Blue Shield averaged 11.6 per cent for the first ten months of this year, as compared with the extremely low

figure of 12.4 per cent for 1948's first year operations.

Arizona Blue Shield was instituted and financed by the Arizona Medical Association, in recognition of the need for equitable distribution of adequate medical care at reasonable cost. The House of Delegates of the Arizona Medical Association is the corporate body of Arizona Blue Shield. At the latest count, more than 580 of the State's doctors of medicine were registered as Blue Shield Participating Physicians.

The Plan is governed by a Board of Directors which includes its four officers. The Board and the administrative staff are assisted by a Professional Committee and a Medical Director. Dr. E. Payne Palmer, Sr., of Phoenix, is President of Arizona Blue Shield. Other officers are: Dr. A. I. Podolsky, Yuma, Vice President; Mr. Earle Barrows, Phoenix, Treasurer, and Dr. Carlos C. Craig, Phoenix, Secretary. All officers have served since the inception of the Plan.

Other Directors are: Dr. E. A. Born, Prescott; Dr. Walter Brazie, Kingman; Dr. Royal Rudolph, Tucson; Mr. John Durkin, Tucson; Dr. W. Paul Holbrook, Tucson; Dr. Hal Rice, Bisbee; Mr. Richard C. Simis, Phoenix; Dr. Lytton-Smith, Phoenix; Mr. Steve Spear, Phoenix, and Dr. O. E. Utzinger, Ray.

Dr. H. D. Ketcherside of Phoenix is chairman of the Professional Committee. Other members are Dr. Joseph M. Greer, Phoenix; Dr. E. J. Hayden, Tucson; Dr. Clarence Warrenburg, Phoenix, and Dr. Harry T. Southworth, Prescott.

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Report of January Council Meeting

A routine meeting of the Council was held in Phoenix, January 15. Many routine matters pertaining to the Association were discussed and settled. Some major problems were also discussed.

The most important probably was the situation in Mohave County. At the October meeting of the Council a Committee consisting of the three past presidents, Doctors George Bassett of Prescott, Preston Brown of Phoenix and Harold Kohl of Tucson, was appointed to investigate the whole situation. The committee reported their findings. The Council unanimously approved of the action taken by the Mohave Medical Society and assured them financial aid in their legal action against the Mohave County Board of Supervisors. This means that the decision on November 1 by Judge H. L. Russell of Coconino County Superior Court, who ruled that the Board of Supervisors had the right to ban physicians from using the facilities of the Mohave County General Hospital, will be appealed to the Arizona Supreme Court.

Another important subject was the rising cost of medical care which has been experienced by the State Industrial Commission. Figures were presented to substantiate the facts. The month of March in 1947, 1948 and 1949 was selected as a comparable example. It was shown that in March of 1947, 1952 cases were handled by the Commission. In 1948, 2153 cases were handled and in March of 1949, 1994 cases. The changes in the fee schedule have not exceeded 2% increase. However, the following are a few figures to show the spiraling charges. In March of 1947 a total of \$70,103 was paid out. In March of 1948, \$94,118 was paid. In March of 1949, \$138,161 was paid.

In March of 1947, \$2,587.00 was paid for fractures. In March of 1948, \$3,291.00 was paid. In March of 1949, \$4,002.00. March of 1947, \$425 was paid for physiotherapy. March of 1948, \$2,381.00 was paid, and in March of 1949, \$5,925.00 was paid.

This same ratio of expenses increased proportionately in all other charges including hospital, laboratory charges, house visits, office calls and consultations. The Council believes that this situation could be corrected. The Industrial Relations Committee held a meeting on January 8 at which time certain recommendations were

made concerning the fee schedule, physiotherapy treatments and additional professional help in the Commission's Central Office. These recommendations were reviewed by the Council and fully approved.

Two matters pertaining to the State Hospital were also discussed. The State Hospital has experienced difficulty in obtaining competent medical personnel. It was recommended by the Council last year that physicians employed by state institutions not be required to have a state license and to have the same status as internes and residents in general hospitals. In order to adopt this recommendation the state law would have to be amended by the legislature. This would eliminate the necessity of physicians, employed by the state institutions, from taking the Basic Science Examination or having temporary licenses issued or taking the state board or going through the process of obtaining reciprocity. Inasmuch as these doctors would be practicing in the Hospital and would not have private patients outside of the Hospital, a state licensure would not be necessary.

A Sub-committee of the Professional Board made a survey of the Hospital last year and decided that the present procedure for commitment to the Hospital was archaic and recommended that the Michigan plan of commitment be adopted. To date nothing has been done about these recommendations. The Council reiterated their position on both of these matters.

The Alameda County system of medical care and the Colorado Grievance Committee plan were discussed at length and a committee appointed to make recommendations at the next meeting of the Council.

Much routine matter pertaining to the Central Office was disposed of.

The Council was in session from 11:00 a. m. until 5:30 p. m.

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